STEREO AUDIO SYSTEM

UD-301/351

SERVICE MANUAL

(A-B3 / X-MB3 X-B3 /LS-B3)

KENWOOD

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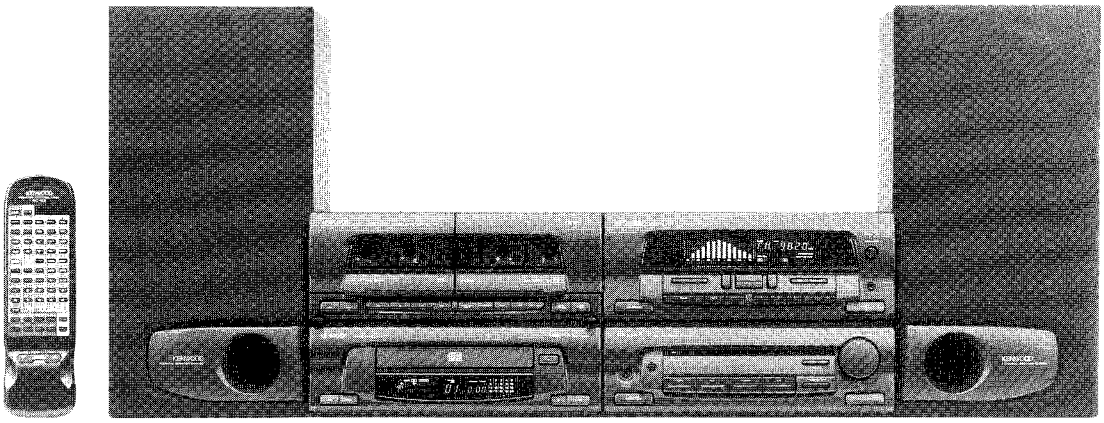
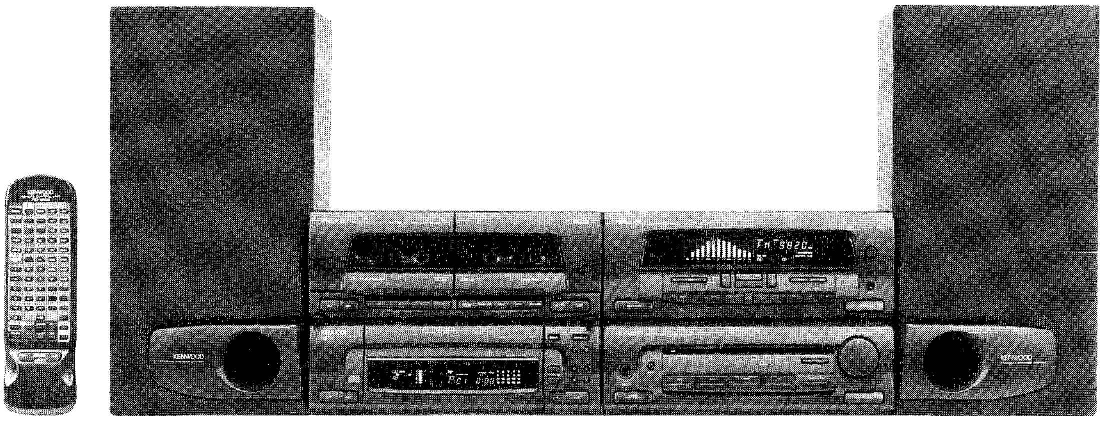
B51-4713-00(S) 4404

A-B3
X-B3
X-MB3
LS-B3

UD-301



UD-351



Name	RECEIVER	CD	SPEAKER	PACKING		Remocon
				Polystyrene foamed fixture	Outer carton case	
UD-301	A-B3	X-B3	LS-B3	H12-2152-04(K,T,E) H12-2153-04(K,T,E)	H60-0146-04(K) H60-0147-04(E,T) H60-0122-04(P,M,X)	RC-B3
UD-351	A-B3	X-MB3	LS-B3	H12-2154-04(K,T,E) H12-2155-04(K,T,E)	H60-0148-04(K) H60-0149-04(E,T) H60-0125-04(Y,M,X)	RC-MB3

Precautions when performing repairs.

(1) If you want to power on X-B3 without A-B3 need power supply jig (RM-90PS). Power-on procedure is written on page 20 (USE TEST MODE).

(2) Do not look directly at the lasler beam while repairing the CD Player.

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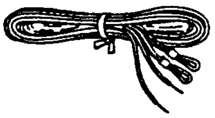
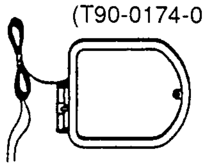
ACCESSORIES

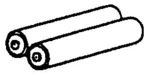
FM indoor antenna 1
(T90-0175-05)



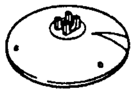
AM loop antenna 1
(T90-0174-05)



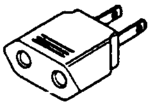
Batteries
('R03' or 'AAA') 2



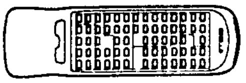
Loop antenna holder 1
(J19-2815-04)



AC plug adaptor 1
(E03-0115-05)



Remote control unit 1
(X94-1011-31):UD-301
(X94-1011-21):UD-351
(A09-0126-03):BATTERY COVER



(A-B3)

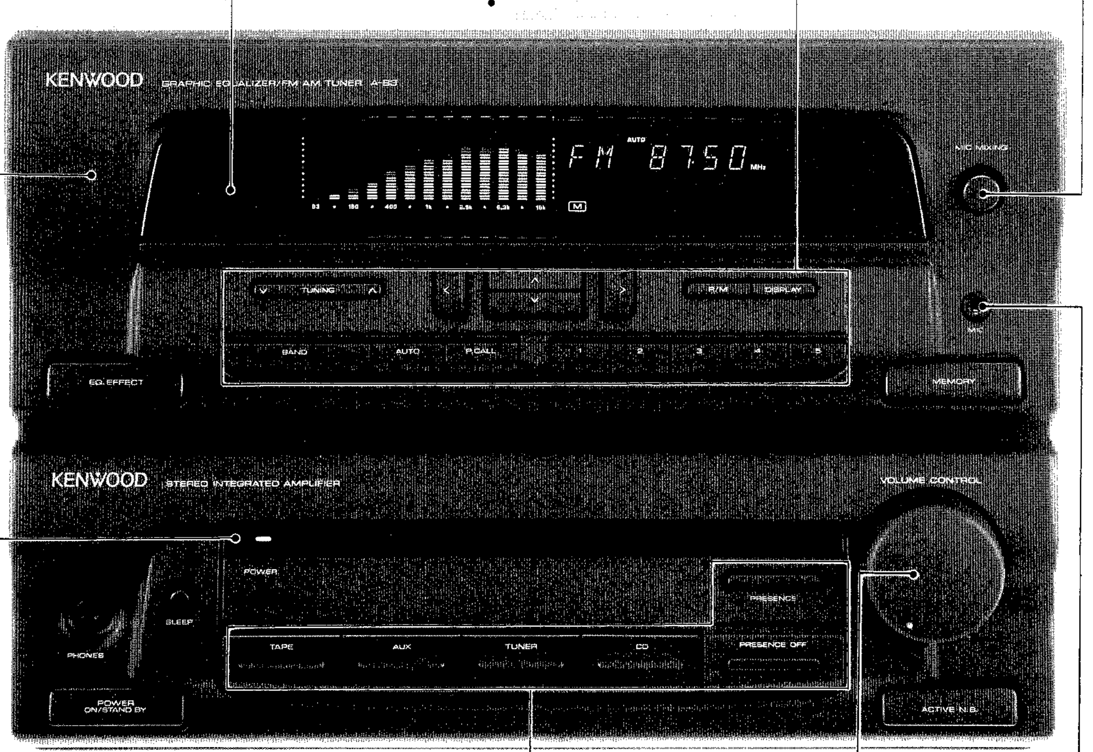
Panel assy
(A60-0388-12): KP
(A60-0389-12): YMX
(A60-0390-12): TE

Front glass
(B10-1961-03)

Metallic cabinet
(A01-3020-01)

Knob
(K29-5665-02)

Knob
(K29-3632-04)


KENWOOD
GRAPHIC EQUALIZER/FM AM TUNER A-B3
FM 87.50 MHz
AUTO
MIC MIXING
TUNING
P/M
DISPLAY
BAND
AUTO
P.CALL
1
2
3
4
5
EQ. EFFECT
MEMORY
MIC
KENWOOD
STEREO INTEGRATED AMPLIFIER
VOLUME CONTROL
POWER
PRESENCE
PRESENCE OFF
SLEEP
PHONES
TAPE
AUX
TUNER
CD
POWER ON/STAND BY
ACTIVE N.B.

Dressing plate
(B03-2820-03)

Knob
(K29-5666-02)

Knob
(K29-5667-04)

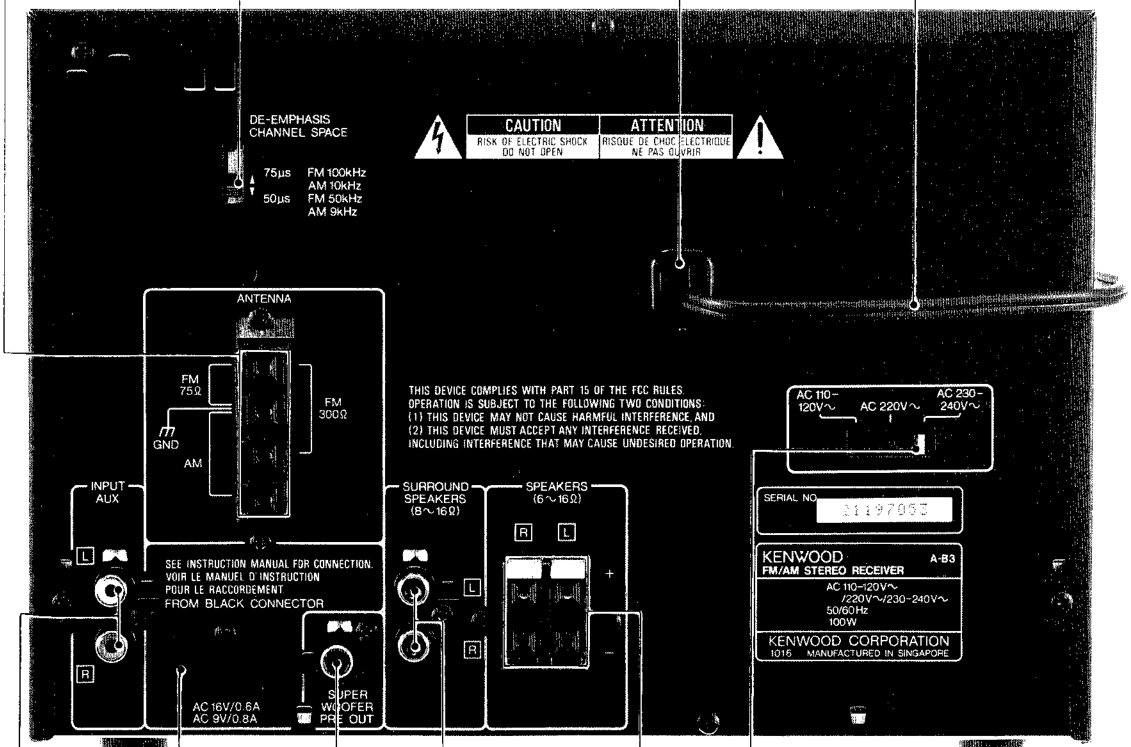
Miniature phone jack
(E11-0220-05)

Lock terminal board
(E20-0476-05): KPYMX
(E20-0321-05): TE

Slide switch
(S31-2094-05)

Power cord bushing
(J42-0083-05)

AC power cord*
(E30-)


DE-EMPHASIS
CHANNEL SPACE
75µs FM 100kHz AM 10kHz
50µs FM 50kHz AM 9kHz
CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN
ATTENTION
RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR
ANTENNA
FM 75Ω
FM 300Ω
GND
AM
THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES.
OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:
(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND
(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED,
INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.
AC 110-120V~
AC 220V~
AC 230-240V~
SERIAL NO.
INPUT AUX
L
R
SEE INSTRUCTION MANUAL FOR CONNECTION.
VOIR LE MANUEL D'INSTRUCTION POUR LE RACCORDEMENT
FROM BLACK CONNECTOR
AC 16V/0.6A
AC 9V/0.8A
SUPER WOOFER PRE OUT
SURROUND SPEAKERS (8~16Ω)
SPEAKERS (6~16Ω)
+
−
KENWOOD A-B3
FM/AM STEREO RECEIVER
AC 110-120V~/220V~/230-240V~
50/60Hz
100W
KENWOOD CORPORATION
MANUFACTURED IN SINGAPORE

Phono jack
(E63-0013-05)

Rectangular receptacle
(E08-1509-05)

Phono jack
(E13-0138-05)

Phono jack
(E63-0041-05)

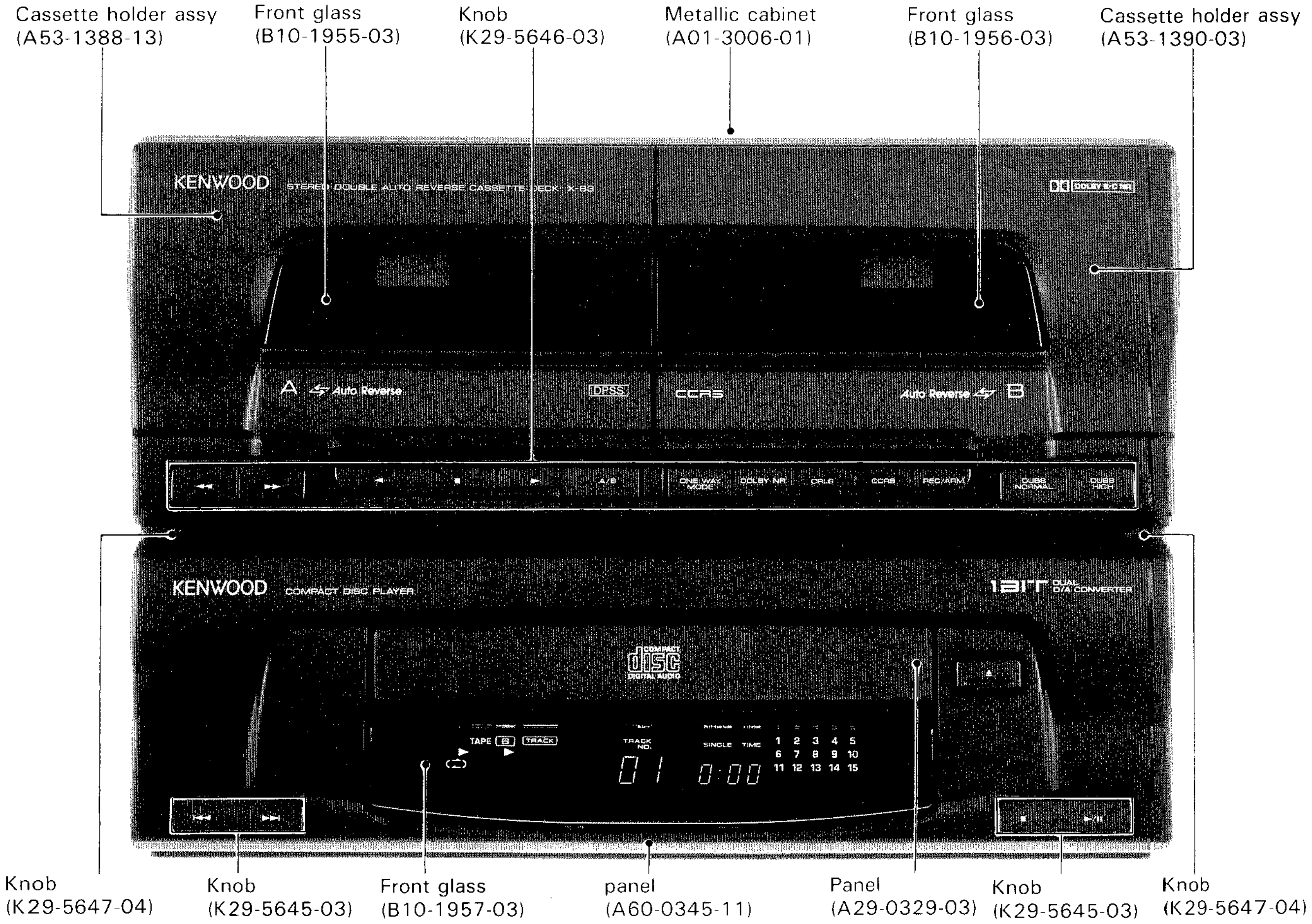
Lock terminal board
(E20-0475-05)

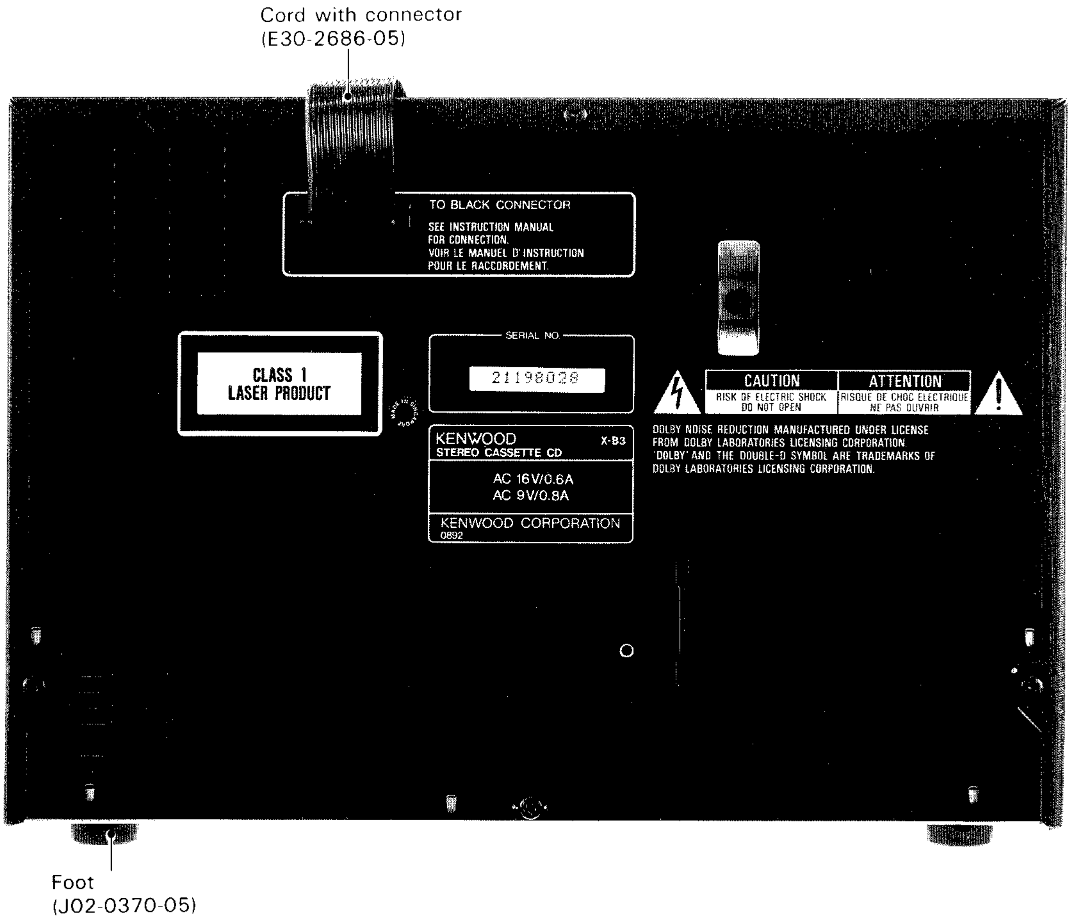
Slide switch
(S31-2322-05)

Foot
(J02-0370-05)

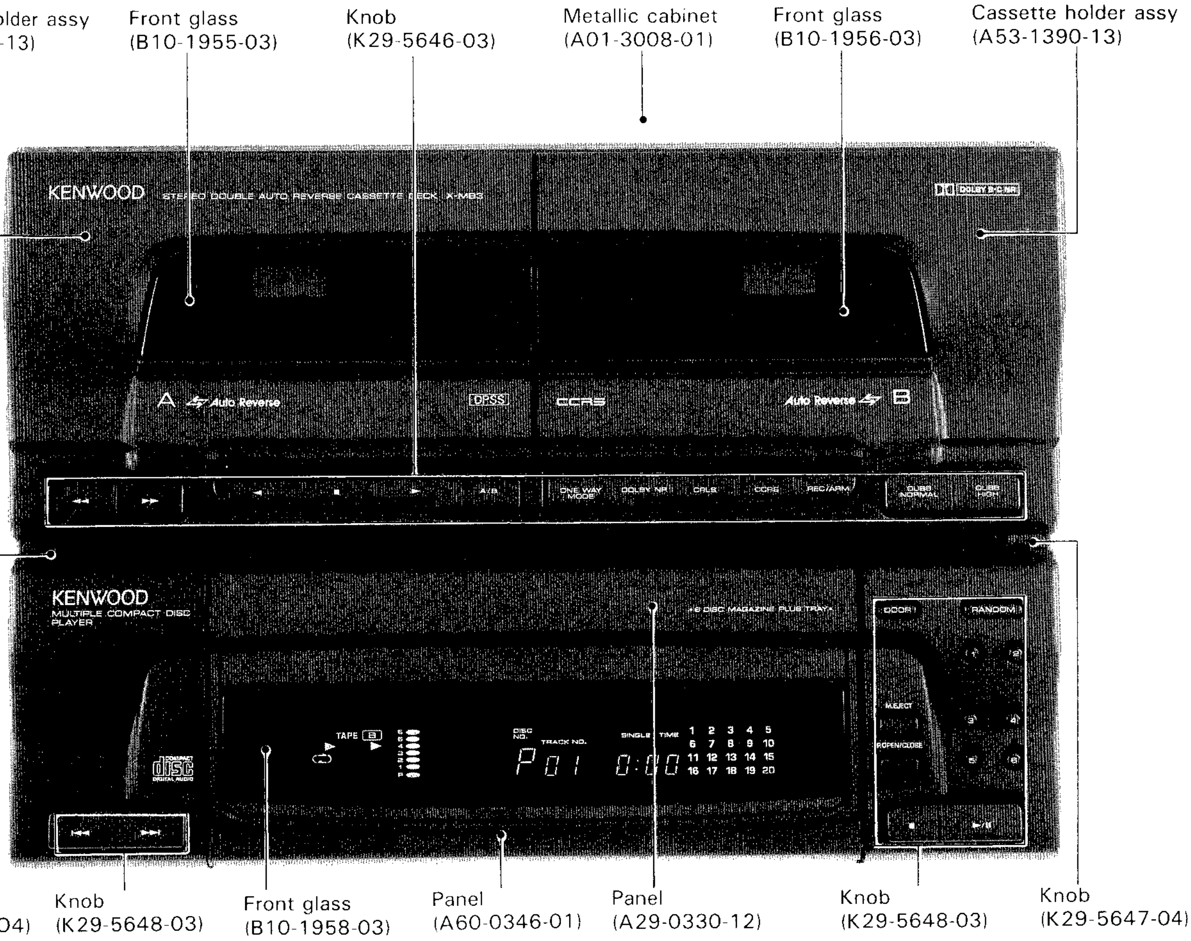
UD-301/351

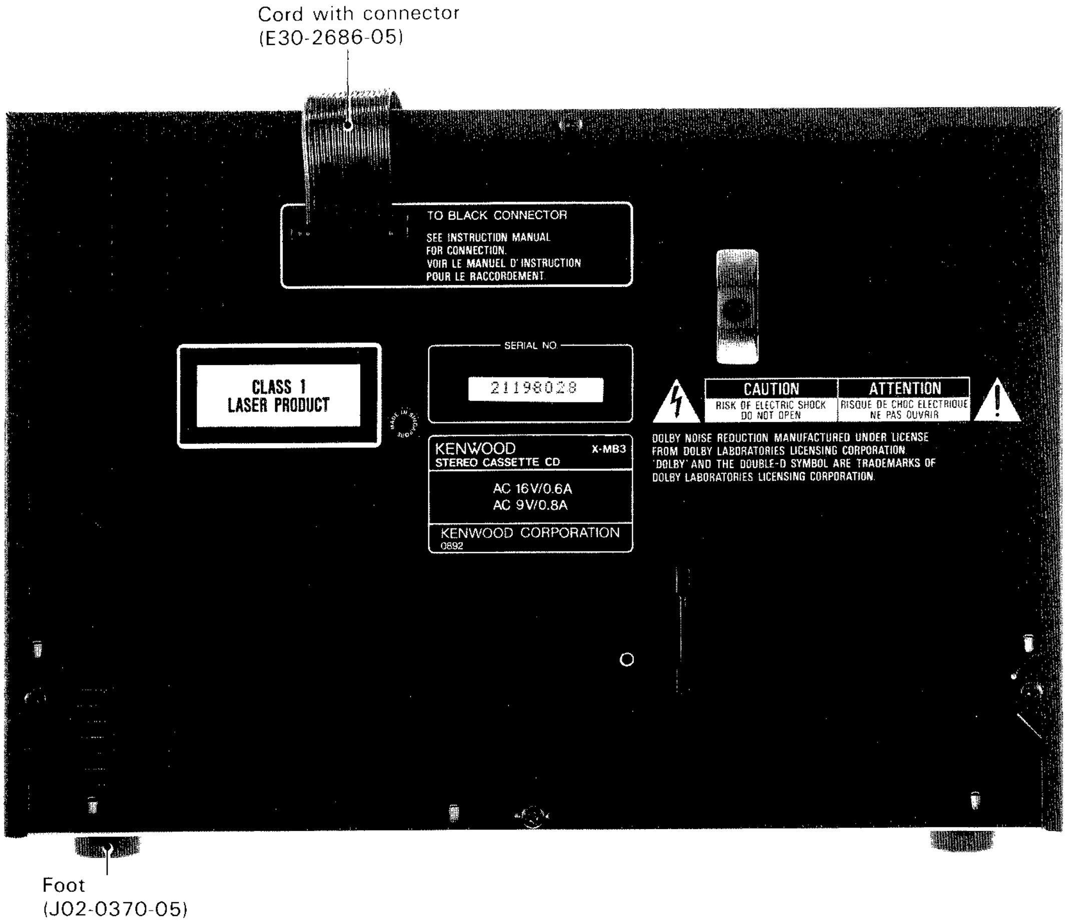
(X-B3)


Cassette holder assy
(A53-1388-13)
Front glass
(B10-1955-03)
Knob
(K29-5646-03)
Metallic cabinet
(A01-3006-01)
Front glass
(B10-1956-03)
Cassette holder assy
(A53-1390-03)
KENWOOD
STEREO DOUBLE AUTO REVERSE CASSETTE DECK X-B3
A Auto Reverse
DPSS
CCRS
Auto Reverse B
KENWOOD
COMPACT DISC PLAYER
1 BIT DUAL D/A CONVERTER
Knob
(K29-5647-04)
Knob
(K29-5645-03)
Front glass
(B10-1957-03)
panel
(A60-0345-11)
Panel
(A29-0329-03)
Knob
(K29-5645-03)
Knob
(K29-5647-04)


Cord with connector
(E30-2686-05)
TO BLACK CONNECTOR
SEE INSTRUCTION MANUAL FOR CONNECTION.
VOIR LE MANUEL D'INSTRUCTION POUR LE RACCORDEMENT.
CLASS 1 LASER PRODUCT
SERIAL NO
21198028
KENWOOD X-B3
STEREO CASSETTE CD
AC 16V/0.6A
AC 9V/0.8A
KENWOOD CORPORATION
CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN
ATTENTION
RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR
DOLBY NOISE REDUCTION MANUFACTURED UNDER LICENSE FROM DOLBY LABORATORIES LICENSING CORPORATION.
"DOLBY" AND THE DOUBLE-D SYMBOL ARE TRADEMARKS OF DOLBY LABORATORIES LICENSING CORPORATION.
Foot
(J02-0370-05)

(X-MB3)


Cassette holder assy
(A53-1392-13)
Front glass
(B10-1955-03)
Knob
(K29-5646-03)
Metallic cabinet
(A01-3008-01)
Front glass
(B10-1956-03)
Cassette holder assy
(A53-1390-13)
KENWOOD
STEREO DOUBLE AUTO REVERSE CASSETTE DECK X-MB3
A Auto Reverse
DPSS
CCRS
Auto Reverse B
ONE WAY MODE
DOLBY NR
CRLS
CCRS
REC/ARM
DUBB NORMAL
DUBB HIGH
KENWOOD
MULTIPLE COMPACT DISC PLAYER
DOOR
RANDOM
M.EJECT
OPEN/CLOSE
P01
0:00
Knob
(K29-5647-04)
Knob
(K29-5648-03)
Front glass
(B10-1958-03)
Panel
(A60-0346-01)
Panel
(A29-0330-12)
Knob
(K29-5648-03)
Knob
(K29-5647-04)


Cord with connector
(E30-2686-05)
TO BLACK CONNECTOR
SEE INSTRUCTION MANUAL FOR CONNECTION.
VOIR LE MANUEL D'INSTRUCTION POUR LE RACCORDEMENT
CLASS 1 LASER PRODUCT
SERIAL NO
21198028
CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN
ATTENTION
RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR
KENWOOD X-MB3
STEREO CASSETTE CD
AC 16V/0.6A
AC 9V/0.8A
KENWOOD CORPORATION
DOLBY NOISE REDUCTION MANUFACTURED UNDER LICENSE FROM DOLBY LABORATORIES LICENSING CORPORATION. "DOLBY" AND THE DOUBLE-D SYMBOL ARE TRADEMARKS OF DOLBY LABORATORIES LICENSING CORPORATION.
Foot
(J02-0370-05)

UD-301/351

REMOTE CONTROL OPERATION

SUPER WOOFER operation key
S.W POWER key, S.W VOLUME key

TUNER operation keys
TUNING key [△], [▽], P. CALL key [△], [▽], BAND key, AUTO key

Clock / timer operation keys
Use these keys when adjusting the time or setting timer operation.
ADJUST key, ENTER key, PROG. key, EXE. key

CD operation keys
[◄◄], [►►] keys, [|◄◄], [►►|] keys, [■] key, [►/II] key

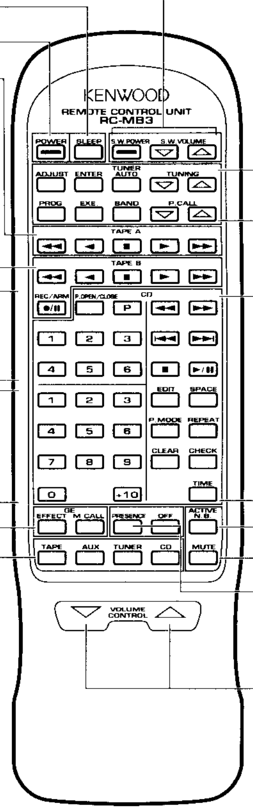
P.MODE :	Switches the play modes.
CLEAR :	Clears a selected track from the program.
CHECK :	Checks the tracks selected in the program.
EDIT :	Switches the editing modes.
SPACE :	During recording, creates a nonrecorded space of 4 seconds between tracks.
REPEAT :	Plays track(s) repeatedly.
TIME :	Switches the time display.

SLEEP key

POWER key

TAPE A operation keys

TAPE B operation keys


KENWOOD
REMOTE CONTROL UNIT
RC-MB3
POWER
SLEEP
S.W.POWER
S.W.VOLUME
ADJUST
ENTER
TUNER AUTO
TUNING
PROG
EXE
BAND
P.CALL
TAPE A
TAPE B
REC/ARM
P.OPEN/CLOSE
CD
P
1
2
3
4
5
6
7
8
9
0
+10
EDIT
SPACE
P.MODE
REPEAT
CLEAR
CHECK
TIME
EFFECT
M.CALL
PRESENCE
OFF
ACTIVE N.B
TAPE
AUX
TUNER
CD
MUTE
VOLUME CONTROL

ACTIVE N.B. key

MUTE key

CD CHANGER operation keys
P.OPEN/CLOSE key,
Disc selector keys (1 ~ 6, P)

Numeric keys
Can be used as the numeric keys for the CD player when the CD input is selected.
Can be used as the numeric keys of the TUNER when the TUNER input is selected.

How to enter numbers:
To enter 20 ··· [+10] [+10] [0]
To enter 23 ··· [+10] [+10] [3]

Graphic equalizer operation keys

EFFECT :	Turns the graphic equalizer effects ON/OFF.
M.CALL :	Each press recalls a pattern from memory.

Presence keys
PRESENCE key, OFF key

VOLUME CONTROL keys
Adjusts the volume. While these keys are operated, the VOLUME CONTROL knob on the main unit rotates and the indicator on it blinks at high speed.

Input select keys

Model Name: RC - MB3
Infrared ray system

TUNER operation keys
TUNING key [△], [▽], P. CALL key [△], [▽], BAND key, AUTO key

Clock / timer operation keys
Use these keys when adjusting the time or setting timer operation.
ADJUST key, ENTER key, PROG. key, EXE. key

CD operation keys
[◄◄], [►►] keys, [|◄◄], [►►|] keys, [■] key, [►/II] key

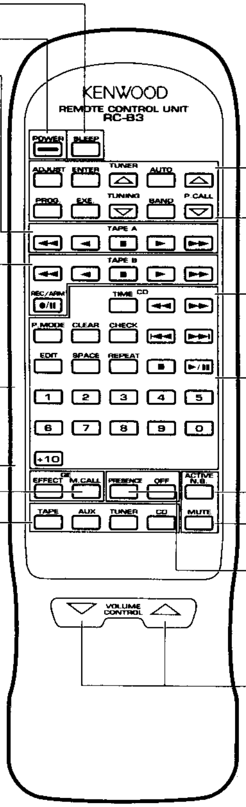
P.MODE :	Switches the play modes.
CLEAR :	Clears a selected track from the program.
CHECK :	Checks the tracks selected in the program.
EDIT :	Switches the editing modes.
SPACE :	During recording, creates a nonrecorded space of 4 seconds between tracks.
REPEAT :	Plays track(s) repeatedly.
TIME :	Switches the time display.

SLEEP key

POWER key

TAPE A operation keys

TAPE B operation keys


KENWOOD
REMOTE CONTROL UNIT
RC-B3
POWER
SLEEP
ADJUST
ENTER
TUNER
AUTO
PROG
EXE
TUNING
BAND
P.CALL
TAPE A
TAPE B
REC/ARM
TIME
CD
P.MODE
CLEAR
CHECK
EDIT
SPACE
REPEAT
1
2
3
4
5
6
7
8
9
0
+10
EFFECT
M.CALL
PRESENCE
OFF
ACTIVE N.B
TAPE
AUX
TUNER
CD
MUTE
VOLUME CONTROL

ACTIVE N.B. key

MUTE key

Numeric keys
Can be used as the numeric keys for the CD player when the CD input is selected.
Can be used as the numeric keys of the TUNER when the TUNER input is selected.

How to enter numbers:
To enter 20 ··· [+10] [+10] [0]
To enter 23 ··· [+10] [+10] [3]

Graphic equalizer operation keys

EFFECT :	Turns the graphic equalizer effects ON/OFF.
M.CALL :	Each press recalls a pattern from memory.

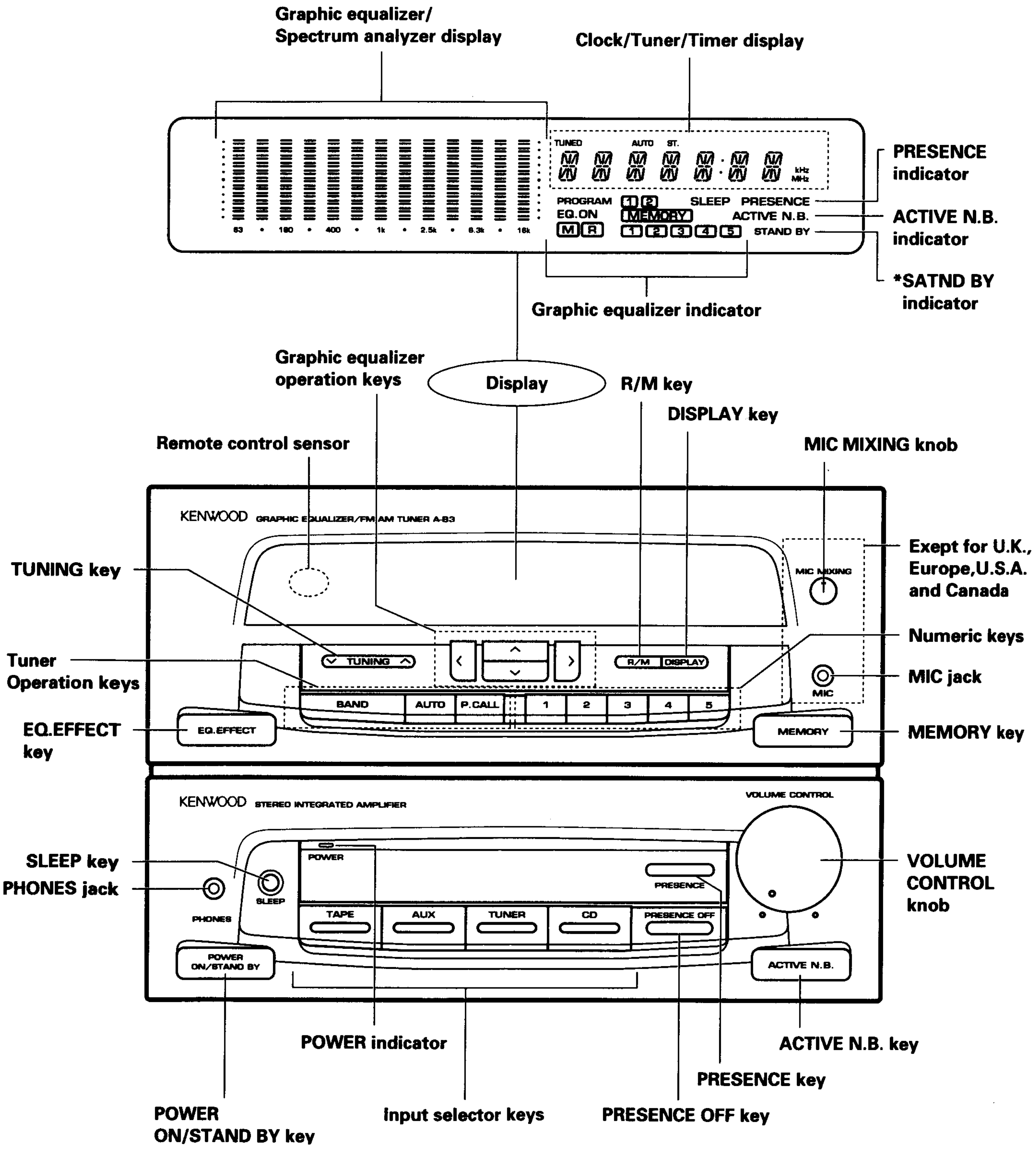
Presence keys
PRESENCE key, OFF key

VOLUME CONTROL keys
Adjusts the volume. While these keys are operated, the VOLUME CONTROL knob on the main unit rotates and the indicator on it blinks at high speed.

Input select keys

Model Name: RC - B3
Infrared ray system

CONTROLS & INDICATORS


Graphic equalizer/
Spectrum analyzer display
Clock/Tuner/Timer display
TUNED AUTO ST.
kHz MHz
63 160 400 1k 2.5k 6.3k 16k
PROGRAM 1 2 SLEEP PRESENCE
EQ.ON MEMORY ACTIVE N.B.
M R 1 2 3 4 5 STAND BY
PRESENCE indicator
ACTIVE N.B. indicator
*SATND BY indicator
Graphic equalizer indicator
Graphic equalizer operation keys
Display
R/M key
DISPLAY key
Remote control sensor
MIC MIXING knob
KENWOOD GRAPHIC EQUALIZER/FM/AM TUNER A-B3
TUNING key
Exept for U.K., Europe,U.S.A. and Canada
MIC MIXING
Numeric keys
TUNING
R/M DISPLAY
Tuner Operation keys
MIC jack
MIC
BAND AUTO P.CALL 1 2 3 4 5
EQ.EFFECT key
EQ.EFFECT
MEMORY
MEMORY key
KENWOOD STEREO INTEGRATED AMPLIFIER
VOLUME CONTROL
SLEEP key
PHONES jack
POWER
PRESENCE
SLEEP
PHONES
TAPE AUX TUNER CD PRESENCE OFF
VOLUME CONTROL knob
POWER ON/STAND BY
ACTIVE N.B.
POWER indicator
ACTIVE N.B. key
PRESENCE key
POWER ON/STAND BY key
Input selector keys
PRESENCE OFF key

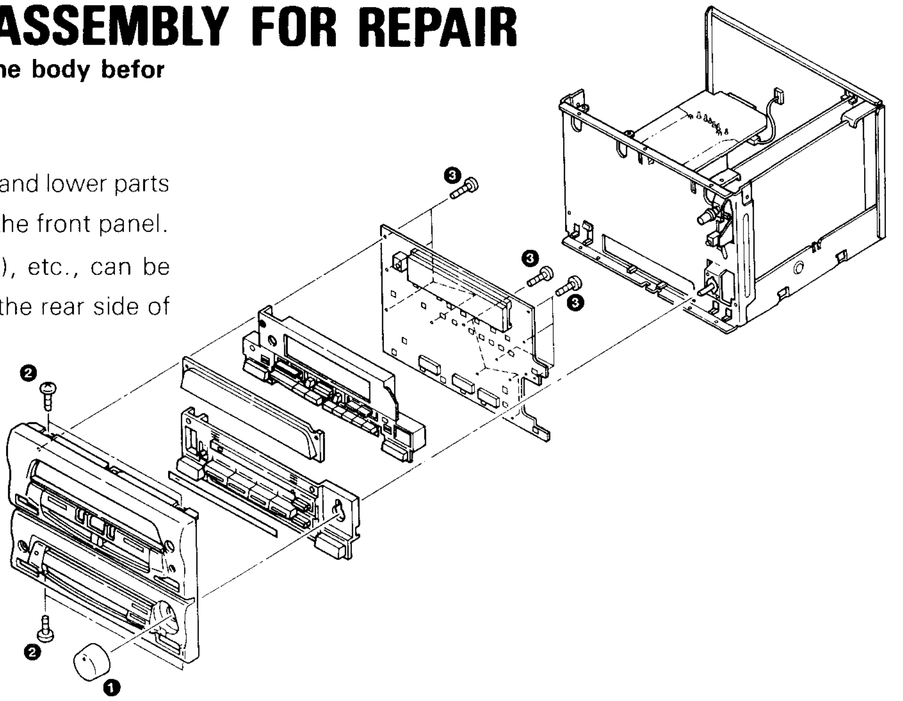
DISASSEMBLY FOR REPAIR

***Remove the metallic cabinet from the body beforehand.**

(1) Remove the knob ❶.

(2) Remove the 4 screws ❷ of the upper and lower parts of the front panel, and then remove the front panel.

(3) The printed circuit boards (X05-A/3), etc., can be removed when the 12 screws ❸ at the rear side of the front panel are removed.

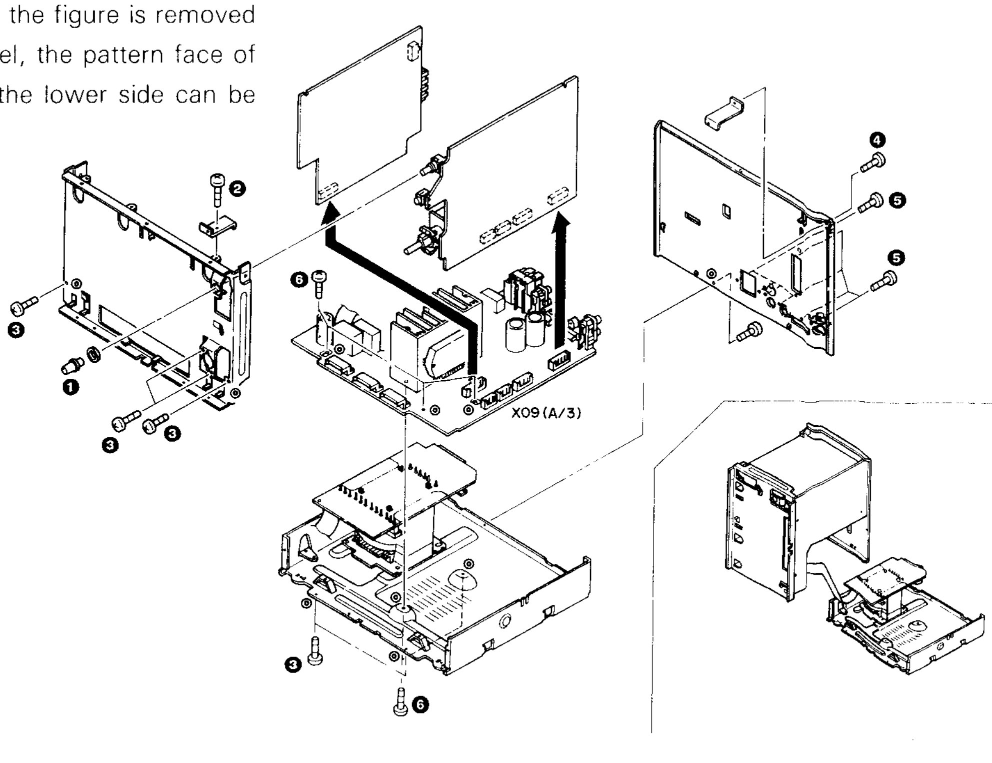


(4) Remove the MIC knob ❶

(5) Remove the screw ❷, and then remove the bracket attached to the front sub-panel.
Remove the 6 screws ❸, and then remove the front sub-panel.
Remove the screw ❹, and then remove the bracket attached to the rear panel.
Pull out the printed circuit boards (X05-B/3) and (X09-B/3) in the direction of the arrow.

(6) Remove the 8 screws ❺, and then remove the rear panel.
Removed the 6 screws ❻, and the remove the printed circuit board (X09-A/3).

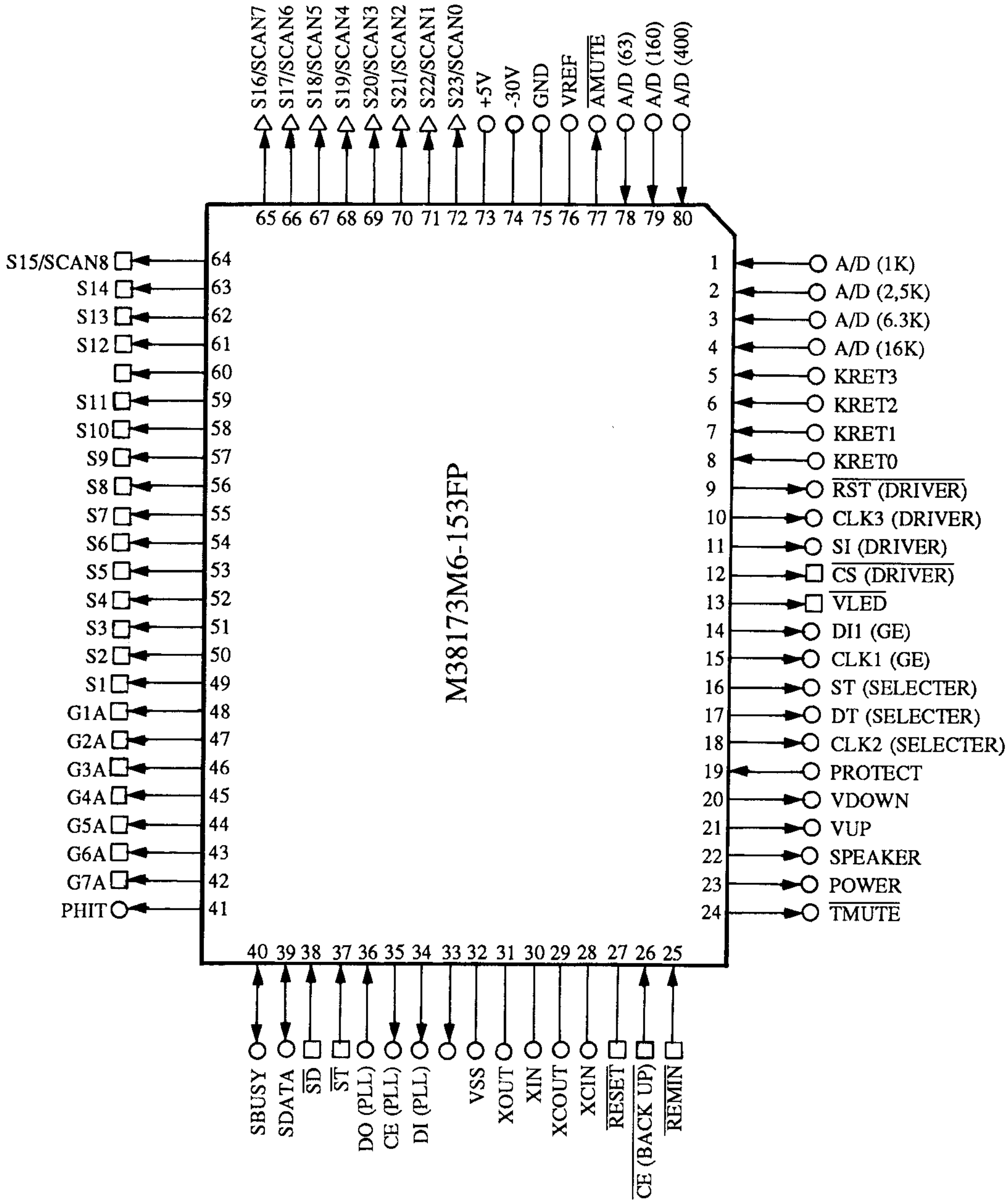
(7) Since the bottom plate can be removed when the screw bearing the mark ○ in the figure is removed after removing the front panel, the pattern face of the printed circuit board of the lower side can be checked as well.



CIRCUIT DESCRIPTION

Microprocessor (M38173M6-153FP)

Pin Connection


M38173M6-153FP
1 A/D (1K)
2 A/D (2,5K)
3 A/D (6.3K)
4 A/D (16K)
5 KRET3
6 KRET2
7 KRET1
8 KRET0
9 RST (DRIVER)
10 CLK3 (DRIVER)
11 SI (DRIVER)
12 CS (DRIVER)
13 VLED
14 DI1 (GE)
15 CLK1 (GE)
16 ST (SELECTER)
17 DT (SELECTER)
18 CLK2 (SELECTER)
19 PROTECT
20 VDOWN
21 VUP
22 SPEAKER
23 POWER
24 TMUTE
25 REMIN
26 CE (BACK UP)
27 RESET
28 XCIN
29 XCOUT
30 XIN
31 XOUT
32 VSS
34 DI (PLL)
35 CE (PLL)
36 DO (PLL)
37 ST
38 SD
39 SDATA
40 SBUSY
41 PHIT
42 G7A
43 G6A
44 G5A
45 G4A
46 G3A
47 G2A
48 G1A
49 S1
50 S2
51 S3
52 S4
53 S5
54 S6
55 S7
56 S8
57 S9
58 S10
59 S11
60
61 S12
62 S13
63 S14
64 S15/SCAN8
65 S16/SCAN7
66 S17/SCAN6
67 S18/SCAN5
68 S19/SCAN4
69 S20/SCAN3
70 S21/SCAN2
71 S22/SCAN1
72 S23/SCAN0
73 +5V
74 -30V
75 GND
76 VREF
77 AMUTE
78 A/D (63)
79 A/D (160)
80 A/D (400)

TEST MODE

(1) Plug the AC cord in the electrical outlet while pressing the CD key. (MEMORY RESET)

(2) The TEST MODE is cancelled when the AC power cord is disconnected from the electrial outlet.

(3) a: ALL FL light up. (The display switches to NOR when any KEY is pressed).

b: The VR moves UP-DOWN when the TAPE KEY is pressed.

c: The NOR→ bar indication is inverted and the various segments of the DISP indication flicker successively when the DISP KEY is pressed.

d: The status of M1 to M5 change as follows:

M1, M5	0 dB
M2	+12 dB
M3	−12 dB

(NOTE) MEMORY is RESET by TEST MODE.

CIRCUIT DESCRIPTION

PD … PULL DOWN
PU … PULL UP

Pin Description

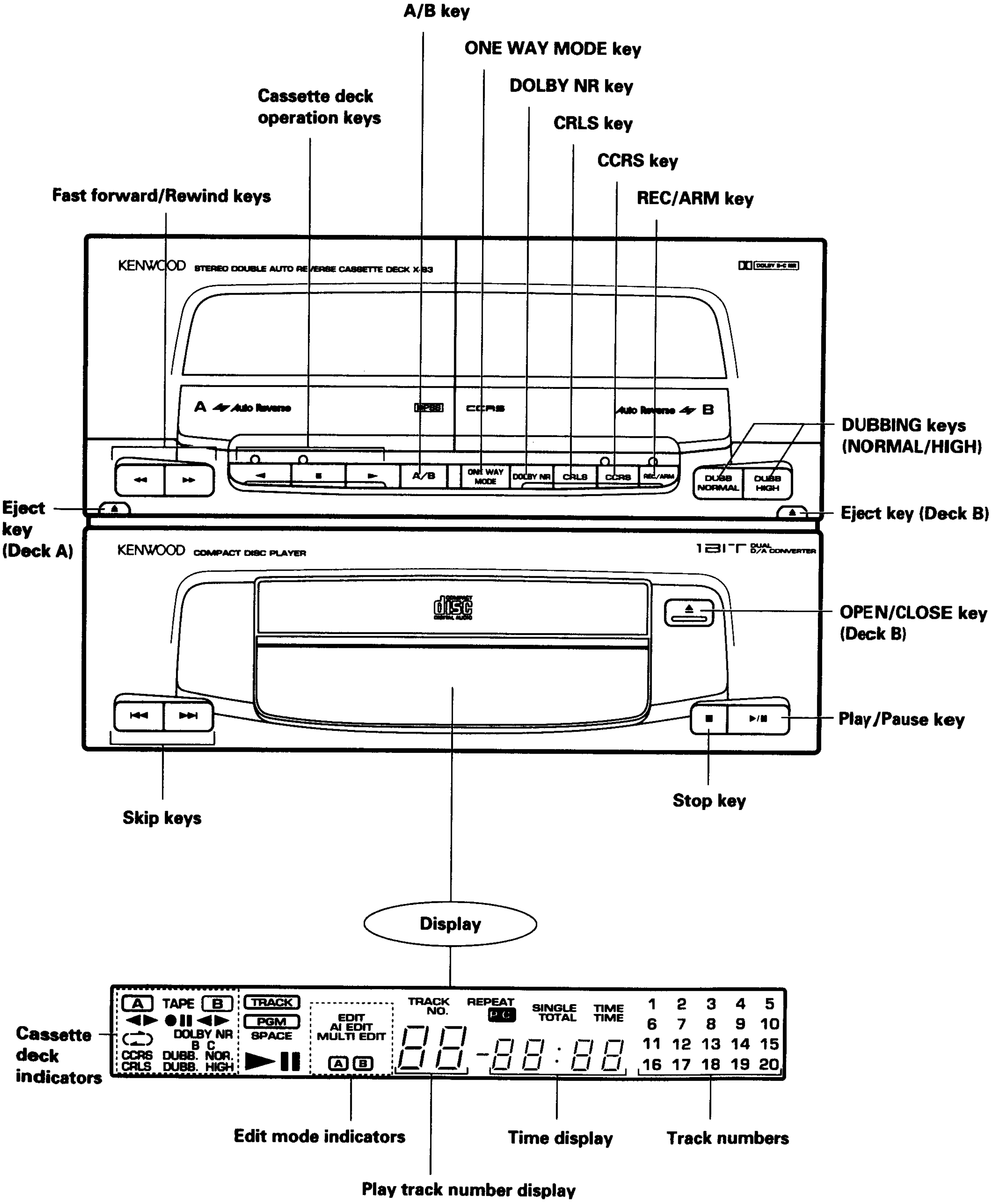
PIN NO.	Name	I/O	MODE	Description
1	A/D (1 kHz)	I		Spectrum analyzer 1 kHz analog input
2	A/D (2.5 kHz)	I		Spectrum analyzer 2.5 kHz analog input
3	A/D (6.3 kHz)	I		Spectrum analyzer 6.3 kHz analog input
4	A/D (16 kHz)	I		Spectrum analyzer 16 kHz analog input
5	KRET3	I	PD	KEY RETURN 3 H=KEY ON L=KEY OFF
6	KRET2	I	PD	KEY RETURN 2 H=KEY ON L=KEY OFF
7	KRET1	I	PD	KEY RETURN 1 H=KEY ON L=KEY OFF
8	KRET0	I	PD	KEY RETURN 0 H=KEY ON L=KEY OFF
9	RST	O	PD	RESET output for display IC (CXP2201) H=NORMAL L=RESET
10	CLK3	O		CLOCK output for display IC (CXP2201)
11	SI	O		DATA output for display IC (CXP2201)
12	CS	O	PU	CHIP SELECT output for display IC (CXP2201) H=ON L=OFF
13	VLED	O	PU	VOLUME LED output H=ON L=OFF
14	D11	O		GE IC (LC7522) DATA output terminal H=1 L=0
15	CLK1	O		GE IC (LC7522) LOCK output terminal H=ON L=OFF
16	ST	O		SEL IC strobe output H=ON L=OFF
17	DT	O		SEL IC DATA output H=1 L=0
18	CLK2	O		SEL IC CLOCK output
19	PROTECT	I	PD	PROTECTION detection terminal H=PROTECT ON L=NORMAL
20	VDOWN	O	PD	Motor volume control output DOWN H=ON L=OFF
21	VUP	O	PD	Motor volume control output UP H=ON L=OFF
22	SPEAKER	O	PD	Speaker relay H=ON L=OFF
23	POWER	O	PD	Power board H=POWER ON L=POWER OFF
24	TMUTE	O	PD	TUNER MUTE output H=ON L=OFF
25	REMIN	I	PU	Remote control input H=ON L=OFF
26	CE BACK UP	I	PU	AC OFF detection input H=AC ON L=AC OFF
27	RESET	I	PU	Reset terminal H=NORMAL L=RESET
28	XCIN	I		Oscillation terminal for clock 3200 Connect crystal oscillator
29	XOUT	O		Oscillation terminal for clock Connect 3200 MHz crystal oscillator
30	XIN	I		MAIN CLOCK oscillation terminal Connect 6.3 MHz ceramic oscillator
31	XOUT	O		MAIN CLOCK oscillation terminal Connect 6.3 MHz ceramic oscillator
32	VSS			GND terminal Connect with GND
33	CL (PLL)	O		CLOCK terminal for PLL (LC7218)
34	DI (PLL)	O		DATA output for PLL (LC7218)
35	CE (PLL)	O		PLL (LC7218) CE control output H=ENABLE L=DISABLE
36	D0	I		PLL IF COUNT input terminal
37	ST	I	PU	TUNER STEREO input H=MONO L=STEREO
38	SD	I	PU	TUNER SD input H=NOT TUNED L=TUNED
39	SDATA	I/O	PD	DATA input/output for system control
40	SBUSY	I/O	PD	BUSY input/output for system control H=TEST L=NORMAL

CIRCUIT DESCRIPTION

PIN NO.	Name	I/O	MODE	Description
41	PHIT	O	PD	SELECTOR SW CONTROL H=ON L=OFF
42	G7A	O	IPD	FL G7A grid drive terminal H=ON L=OFF
43	G6A	O	IPD	FL G6A grid drive terminal H=ON L=OFF
44	G5A	O	IPD	FL G5A grid drive terminal H=ON L=OFF
45	G4A	O	IPD	FL G4A grid drive terminal H=ON L=OFF
46	G3A	O	IPD	FL G3A grid drive terminal H=ON L=OFF
47	G2A	O	IPD	FL G2A grid drive terminal H=ON L=OFF
48	G1A	O	IPD	FL G1A grid drive terminal H=ON L=OFF
49	FL S1	O	IPD	FL S1 segment drive terminal H=ON L=OFF
50	FL S2	O	IPD	FL S2 segment drive terminal H=ON L=OFF
51	FL S3	O	IPD	FL S3 segment drive terminal H=ON L=OFF
52	FL S4	O	IPD	FL. S4 segment drive terminal H=ON L=OFF
53	FL S5	O	IPD	FL S5 segment drive terminal H=ON L=OFF
54	FL S6	O	IPD	FL S6 segment drive terminal H=ON L=OFF
55	FL S7	O	IPD	FL S7 segment drive terminal H=ON L=OFF
56	FL S8	O	IPD	FL S8 segment drive terminal H=ON L=OFF
57	FL S9	O	IPD	FL S9 segment drive terminal H=ON L=OFF
58	FL S10	O	IPD	FL S10 segment drive terminal H=ON L=OFF
59	FL S11	O	IPD	FL S11 segment drive terminal H=ON L=OFF
60		O	IPD	unused OPEN
61	FL S12	O	IPD	FL S12 segment drive terminal H=ON L=OFF
62	FL S13	O	IPD	FL S13 segment drive terminal H=ON L=OFF
63	FL S14	O	IPD	FL S14 segment drive terminal
64	FL S15/KS8	O	IPD	FL S15 segment drive terminal KEY SCAN 8
65	FL S16/KS7	O	IPD	FL S16 segment drive terminal KEY SCAN 7
66	FL S17/KS6	O	IPD	FL S17 segment drive terminal KEY SCAN 6
67	FL S18/KS5	O	IPD	FL S18 segment drive terminal KEY SCAN 5
68	FL S19/KS4	O	IPD	FL S19 segment drive terminal KEY SCAN 4
69	FL S20/KS3	O	IPD	FL S20 segment drive terminal KEY SCAN 3
70	FL S21/KS2	O	IPD	FL S21 segment drive terminal KEY SCAN 2
71	FL S22/KS1	O	IPD	FL S22 segment drive terminal KEY SCAN 1
73	FL S23/KS0	O	IPD	FL S23 segment drive terminal KEY SCAN 0
73	VCC			Power supply terminal Connect with +5 V
74	VEE			Poweor supply terminal for FL Connect with −30 V
75	AVSS			GND for A/D Connect with GND
76	A/D REFERENC			A/D reference voltage preset terminal Connect with 5 V without backup H=ON L=OFF
77	MUTE	O	PD	AUDIO MUTE output H=OFF L=N
78	A/D (63 Hz)	I		Spectrum analyzer 63 Hz analog input H=ON L=OFF
79	A/D (160 Hz)	I		Spectrum analyzer 160 Hz analog input H=ON L=OFF
80	A/D (400 Hz)	I		Spectrum analyzer 400 Hz analog input H=ON L=OFF

UD-301/351

CONTROLS & INDICATORS


A/B key
ONE WAY MODE key
DOLBY NR key
Cassette deck operation keys
CRLS key
CCRS key
Fast forward/Rewind keys
REC/ARM key
KENWOOD STEREO DOUBLE AUTO REVERSE CASSETTE DECK X-B3
A Auto Reverse
CCRS
Auto Reverse B
DUBBING keys (NORMAL/HIGH)
A/B
ONE WAY MODE
DOLBY NR
CRLS
CCRS
REC/ARM
DUBB NORMAL
DUBB HIGH
Eject key (Deck A)
Eject key (Deck B)
KENWOOD COMPACT DISC PLAYER
1BIT DUAL D/A CONVERTER
OPEN/CLOSE key (Deck B)
Play/Pause key
Skip keys
Stop key
Display
A TAPE B
DOLBY NR B C
CCRS CRLS
DUBB. DUBB.
NOR. HIGH
TRACK
PGM
SPACE
EDIT
AI EDIT
MULTI EDIT
A B
TRACK NO.
REPEAT
SINGLE TOTAL
TIME TIME
1 2 3 4 5
6 7 8 9 10
11 12 13 14 15
16 17 18 19 20
Cassette deck indicators
Edit mode indicators
Time display
Track numbers
Play track number display

DISASSEMBLY FOR REPAIR

***Remove the metallic cabinet from the body beforehand.**

(1) Open the cassette holder by pushing the eject button. Then, remove the front glass by pushing the hook ❶ located inside the cassette holder by means of a square-bard standard screwdriver and the like.

(2) If the tray doesn't come out even when the power is turned ON, slide the lever located in side the CD mechanism with a slender screwdriver, a piece of wire, etc., from the left-hand side of the front panel ❷.
When the CD tray panel of the fornt panel comes out, pull the tray out and then remove the tray panel ❸. (X-B3 only)

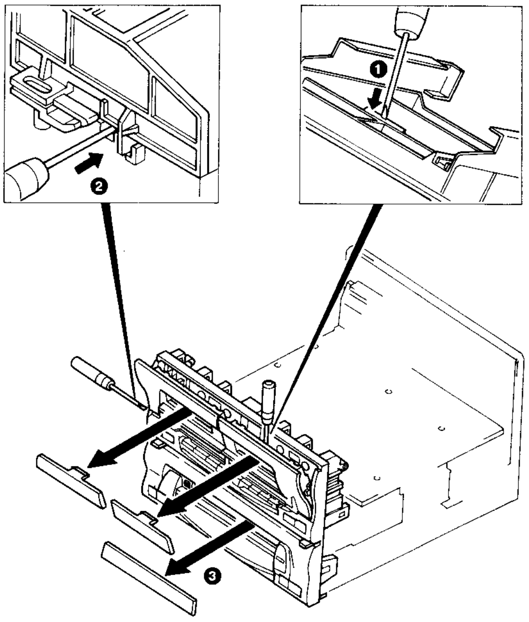
(3) Disconnect the flat cable.

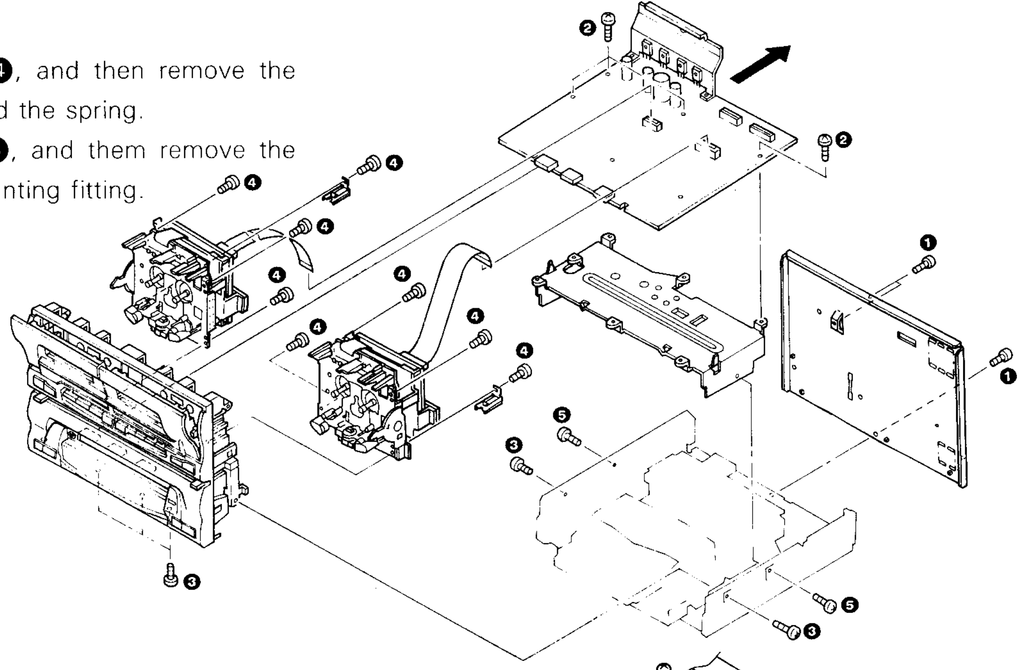
(4) Remove the 4 screws ❶, and then remove the rar panel.
Remove the 4 screws ❷, pull the deck printed circuit board in the arrow direction, and then disconnect the connector from the front printed circuit board.

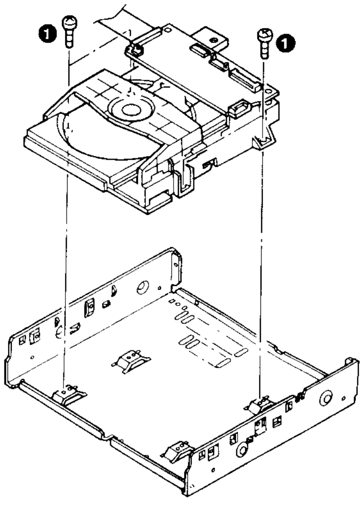
(5) Remove the 6 screws ❸, and then remove the front panel.

(6) Remove the 8 screws ❹, and then remove the mechanism main unit and the spring.

(7) Remove the 2 screws ❺, and them remove the printed circuit board mounting fitting.







(8) The CD mechanism can be removed when the 4 screws ❶ are removed.

(Note 1)
Refer to DP-A5/A9 for the mechanism disassembling method.

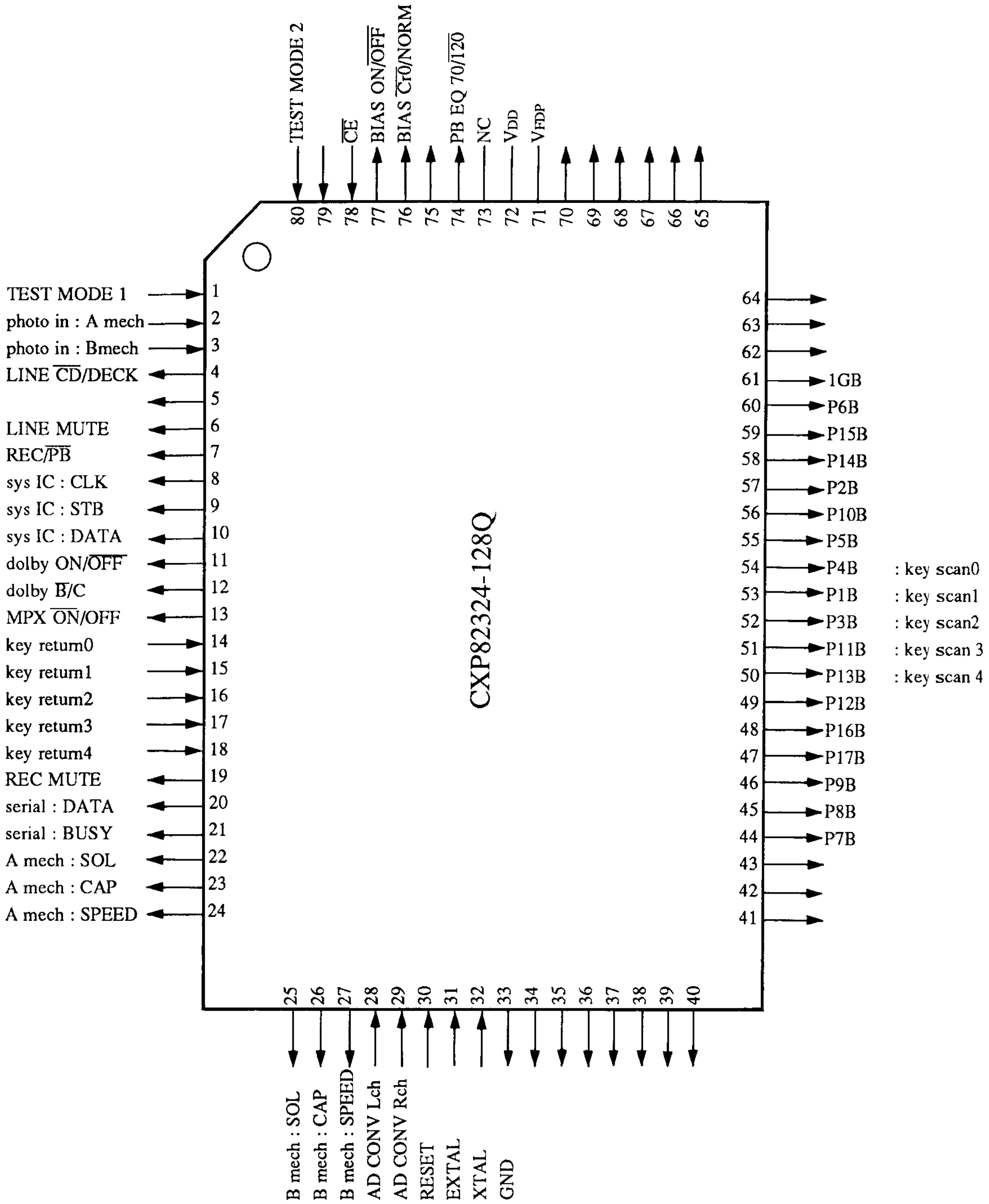
(Note 2)
REPAIRING THE CD UNIT
The FL indication goes out when the rear panel and the cassette printed circuit board (X29-) are removed, but the operation of the CD can be checked notwithstanding.

CIRCUIT DESCRIPTION

DECK

Microprocessor (CXP82324-128Q):IC1(X29)

Port layout


CXP82324-128Q
TEST MODE 1 — 1
photo in : A mech — 2
photo in : Bmech — 3
LINE ~~CD~~/DECK — 4
5
LINE MUTE — 6
REC/PB — 7
sys IC : CLK — 8
sys IC : STB — 9
sys IC : DATA — 10
dolby ON/OFF — 11
dolby B/C — 12
MPX ON/OFF — 13
key return0 — 14
key return1 — 15
key return2 — 16
key return3 — 17
key return4 — 18
REC MUTE — 19
serial : DATA — 20
serial : BUSY — 21
A mech : SOL — 22
A mech : CAP — 23
A mech : SPEED — 24
25 — B mech : SOL
26 — B mech : CAP
27 — B mech : SPEED
28 — AD CONV Lch
29 — AD CONV Rch
30 — RESET
31 — EXTAL
32 — XTAL
33 — GND
34
35
36
37
38
39
40
41
42
43
44 — P7B
45 — P8B
46 — P9B
47 — P17B
48 — P16B
49 — P12B
50 — P13B : key scan 4
51 — P11B : key scan 3
52 — P3B : key scan2
53 — P1B : key scan1
54 — P4B : key scan0
55 — P5B
56 — P10B
57 — P2B
58 — P14B
59 — P15B
60 — P6B
61 — 1GB
62
63
64
65
66
67
68
69
70
71 — VFDP
72 — VDD
73 — NC
74 — PB EQ 70/120
75
76 — BIAS CrO/NORM
77 — BIAS ON/OFF
78 — CE
79
80 — TEST MODE 2

CIRCUIT DESCRIPTION

Pin Description

Pin No.	Pin Name	IN/OUT	Function
1	PE3	IN	Test mode 1 (For line). "L" = ON
2	PE4	IN	Reception of revolution detection pulse from photosehser of mechanism A.
3	PE5	IN	Reception of revolution detection pulse from photosensor of Mechanism B.
4	PE6	OUT	Switching of LINE OUT to either CD or DECK. "H": CD "L": DECK
5	PE7	IN	Unused
6	PB0	OUT	LINE mute "L" = MUTE ON
7	PB1	OUT	REC/PB switching of mechanism B. "H" = PB
8	SCK0	OUT	Clock for sending data to the system IC
9	SI0	OUT	Strobe for sending data to the system IC
10	SO0	OUT	Data to be sent to the system IC.
11	PB5	OUT	Selection of ON/OFF state of DOLBY NR. "H" = ON
12	PB6	OUT	Specification of B or C when DOLBY NR ON. "H" = C
13	PB7	OUT	Specification of ON/OFF of MPX. "H" = OFF
14	KR0	IN	Return of key scan
15	KR1	IN	Return of key scan
16	KR2	IN	Return of key scan
17	KR3	IN	Return of key scan
18	KR4	IN	Return of key scan
19	PC5	OUT	REC MUTE "L" = MUTE ON
20	PC6	IN/OUT	DATA of serial communication.
21	PC7	IN/OUT	BUSY of serial communication
22	PA0	OUT	Control of solenoid of MECHANISM A. "H" = ON
23	PA1	OUT	Control of capstan of MECHANISM A. "H" = REVOLVING
24	PA2	OUT	Specification of revolution speed of motor of MECHANISM A. "L" = HIGH SPEED
25	PA3	OUT	Control of solenoid of MECHANISM B. "H" = ON
26	PA4	OUT	Control of capstan of MECHANISM B. "H" = REVOLVING
27	PA5	OUT	Specification of revolution speed of motor of MECHANISM B. "L" = HIGH SPEED
28	AN6	IN	Input terminal of AD converter. Lch of LINE
29	AN7	IN	Input terminal of AD converter. Lch of LINE
30	RST		Reset input terminal.
31	EXTAL		Input terminal of clock
32	XTAL		Input terminal of clock
33	Vss		GND
34	PD0	OUT	Unused
35	PD1	OUT	Unused
36	PD2	OUT	Unused
37	PD3	OUT	Unused
38	PD4	OUT	Unused
39	PD5	OUT	Unused
40	PD6	OUT	Unused

CIRCUIT DESCRIPTION

Pin No.	Pin Name	IN/OUT	Function
41	PD7	OUT	Unused
42	PF0	OUT	Unused
43	PK1	OUT	Unused
44	S10	OUT	P7B : ⏸ (For DECK B)
45	S11	OUT	P8B: ◀ (For DECK B)
46	S12	OUT	P9B: ◀ (For DECK B)
47	S13	OUT	P17B: DUBB, HIGH
48	S14	OUT	P16B: DUBB, NOR
49	S15	OUT	P12B: B (DOLBY NR TYPE indication)
50	S16	OUT	P13B: C (ALso used as key-scan output) (DOLBY NR TYPE indication)
51	S17	OUT	P11B: DOLBY NR (Also used as key-scan output)
52	S18	OUT	P3B: B (Also used as key-scan output) (Deck B indication)
53	S19	OUT	P1B: A (Also used as key-scan output (Deck A indication)
54	S20	OUT	P4B: ◀ (Also used as key-scan output) (For Deck A)
55	S21	OUT	P5B: ▶ (For Deck A)
56	S22	OUT	P10B: (Endless indication)
57	S23	OUT	P2B: TAPE ⇄ (Permanetly lit)
58	S24	OUT	P14B: CCRS
59	S25	OUT	P15B: CRLS
60	S26	OUT	P6B: ● (For Deck B)
61	T9	OUT	1GB: Grid
62	T8	OUT	Unused
63	T7	OUT	Unused
64	T6	OUT	Unused
65	T5	OUT	Unused
66	T4	OUT	Unused
67	T3	OUT	Unused
68	T2	OUT	Unused
69	T1	OUT	Unused
70	T0	OUT	Unused
71	VFDP		Unused
72	VDD		Positive power supply terminal (+5 V)
73	NC		NC
74	PG0	OUT	Specification of playback equalizer. "H" = 70 μ
75	PG1	OUT	Unused
76	PG2	OUT	Specification of BIAS
77	PG3	OUT	Control of BIAS oscilation. "H" = ON (Oscillation)
78	INTO	OUT	Chip enable terminal
79	PE1	IN	Unused
80	PE2	IN	Test mode 2 (For PCB jig). "L" = ON.

CIRCUIT DESCRIPTION

TEST MODE

PRESETTING METHOD

- Turn the power ON while pressing the FWD PLAY (▶) key.
- Ground TP3 of TEST 1, and turn the power ON. At this time, CD is also switched to the test mode by the serial code (DO11).

FUNCTIONS

(1) Four-second REC (Operation by means of REC key)

① The REC operation with 4-second duration (Including mechanism switching time) at the current head direction of DECK B is started. The tape count is reset for the tape to return to the beginning of the recording.

② After finishing the REC operation with 4-second duration, the tape is rewound at double speed for the tape count to return to zero.

③ The tape is played back. (The operation is not interrupted).

(2) Thirteen-second REC (Operation by means of the CCRS key)

① The REC operation with 13-second duration (Including mechanism switching time. Dolby is set to B) at the current head direction of DECK B is started. The tape count is zeroed.

② The tape is rewound when the REC operation with 14-second duration is finished.

③ The tape is played back whe it is rewound back to the REC starting position. (The operation is not interrupted).

④ The operation stops with the DOLBY noise reduction OFF when the STOP key is pressed.

(3) SWITCHING THE SPEED

The tape runs with double speed when the FF key is pressed during FWD PLAY, and returns to the ordinary speed when theh FWD PLAY key is pressed.

(4) Lighting all FL up

All FL are lit up apoproximately 0.5 second after turning the power ON in TEST1.

All FL stay lit up for approxoimately 2 seconds, and after that they change to the special indication state for TEST.

(5) INDICATIOLNS OF FL

The reel pulse is detected, adn (A) flickers at the DECK A, and (B) flickers at DECK B.

The recording tab of the half is detected, and the ◀▶ indication appears in the recordable direction. (Only DECK B).

(6) OTHERS

① The initial values are forcibly preset in the backup area when POWER is turned ON with the STOP key kept pressed.

② The initial value of the line-out selector becomes CD when POWER is turned ON with the REC key kept pressed. (Usually, the initial value is DECK).

③ The initial values are forcibly preset in the backup area when POWER is turned ON for the first time right after finishing TEST 1 and TEST 2.

④ The rise-up time is made as short as possible, as long as there is no influence ON the other operations.

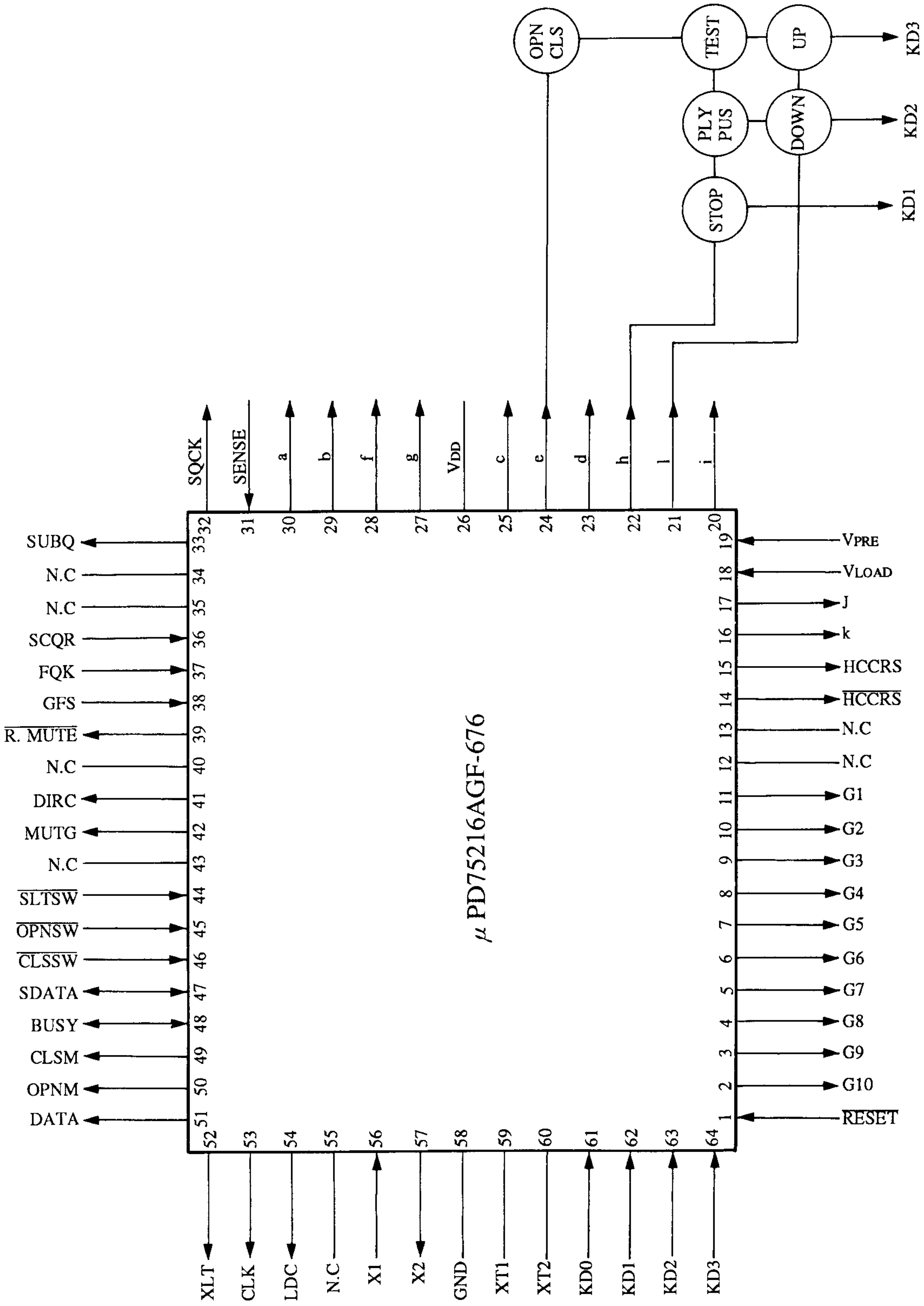
The operation of the keys is enabled when the initialization of the mechanism is finished. (It takes about 2 to 3 seconds to initialize the mechanism).

CIRCUIT DESCRIPTION

CD

2.Microprocessor: μPD75216AGF-676:IC1(X32)

2-1. Pin connection


OPN CLS
TEST
UP
KD3
PLY PUS
DOWN
KD2
STOP
KD1
SQCK
SENSE
a
b
f
g
VDD
c
e
d
h
l
i
32
31
30
29
28
27
26
25
24
23
22
21
20
SUBQ 33
N.C 34
N.C 35
SCQR 36
FQK 37
GFS 38
R. MUTE 39
N.C 40
DIRC 41
MUTG 42
N.C 43
SLTSW 44
OPNSW 45
CLSSW 46
SDATA 47
BUSY 48
CLSM 49
OPNM 50
DATA 51
19 VPRE
18 VLOAD
17 J
16 k
15 HCCRS
14 HCCRS
13 N.C
12 N.C
11 G1
10 G2
9 G3
8 G4
7 G5
6 G6
5 G7
4 G8
3 G9
2 G10
1 RESET
μPD75216AGF-676
52 XLT
53 CLK
54 LDC
55 N.C
56 X1
57 X2
58 GND
59 XT1
60 XT2
61 KD0
62 KD1
63 KD2
64 KD3

CIRCUIT DESCRIPTION

2-2. Pin Description

Pin No.	Pin Name	I/O	Function
1	$\overline{\text{RESET}}$	—	RESET input terminal. ACTIVE = "L"
2~11	10G~1G	O	1FL grid 10 G to 1G.
12, 13	N, C	O	Unused
14	$\overline{\text{HCCRS}}$	O	Double speed control output (DOUBLE SPEED: "L")
15	HCCRS	O	Double speed control output (DOUBLE SPEED: "H")
16	k	O	FL segment k
17	j	O	FL segment l
18	VLOAD	O	FL erasing voltage power supply
19	VPRE	O	FL predriver power supply
20	i	O	FL segment j.
21	l	O	FL segment l/KEY scan port.
22	h	O	FL segment k/KEY scan port.
23	d	O	FL segment d/KEY scan port.
24	e	O	FL segment e/KEY scan port.
25	c	O	FL segment c/KEY scan port.
26	VDD	—	+5V power supply terminal.
27	g	O	FL segment g/KEY scan port.
28	f	O	FL segment f/KEY scan port.
29	b	O	FL segment b/KEY scan port.
30	a	O	FL segment a/KEY scan port.
31	SENSE	I	SENSE detection terminal from information processing & servo IC.
32	SQCK	O	Q-data reading clock output terminal.
33	SUBQ	O	Q-data input terminal.
34, 35	N. C	I	Unused
36	SCOR	I	Sub-code frame sink detection signal input terminal.
37	FOK	I	FOK signal input terminal of RF amplifier.
38	GFS	I	Frame sink signal input terminal.
39	$\overline{\text{RMUTE}}$	O	Analog simulation signal (MUTE ON = "L")
40	N, C	O	Unused
41	DIRC	O	DIRC control terminal of servo IC.
42	MUTG	O	MUTE control terminal of signal processing IC (MUTE ON: "H")
43	N, C	O	Unused
44	$\overline{\text{SLTSW}}$	I	Start limit SW input (ON: "L")
45	$\overline{\text{OPNSW}}$	I	Tray open SW input (ON: "L")
46	CLSSW	I	Tray close SW input (ON: "L")
47	SDATA	I/O	Serial signal (DATA) input/ouput terminal.
48	BUSY	I/O	Serial signal (BUSY) input/ouput terminal.
49	CLSM	O	Tray close motor control terminal.
50	OPNM	O	Tray open motor control terminal.
51	DATA	O	Signal processing & servo IC control output terminal. (Data).
52	XLT	O	Signal processing & servo IC control output terminal. (Latch).
53	CLK	O	Signal processing & servo IC control output terminal. (Clock).
54	LDC	O	Laser signal output terminal.
55	N. C	O	Unused.
56	X1	—	Oscillation input terminal. (4.19 MHz)
57	X2	—	Oscillation output terminal.
58	VSS	—	GND power supply terminal.
59	XT1	—	GND
60	XT2	—	OPEN
61	KD0	I	KEY input terminal.
62	KD1	I	KEY input terminal
63	KD2	I	KEY input terminal
64	KD3	I	KEY input terminal

CIRCUIT DESCRIPTION

X-B3 (CD)

TEST MODE

* There are 2 methods to obtain the output of the CD when there is no A-B3.

① Turn the POWER ON while pressing the ◁◁ KEY of the DECK.

② Ground the base of Q110 (X29-2390).

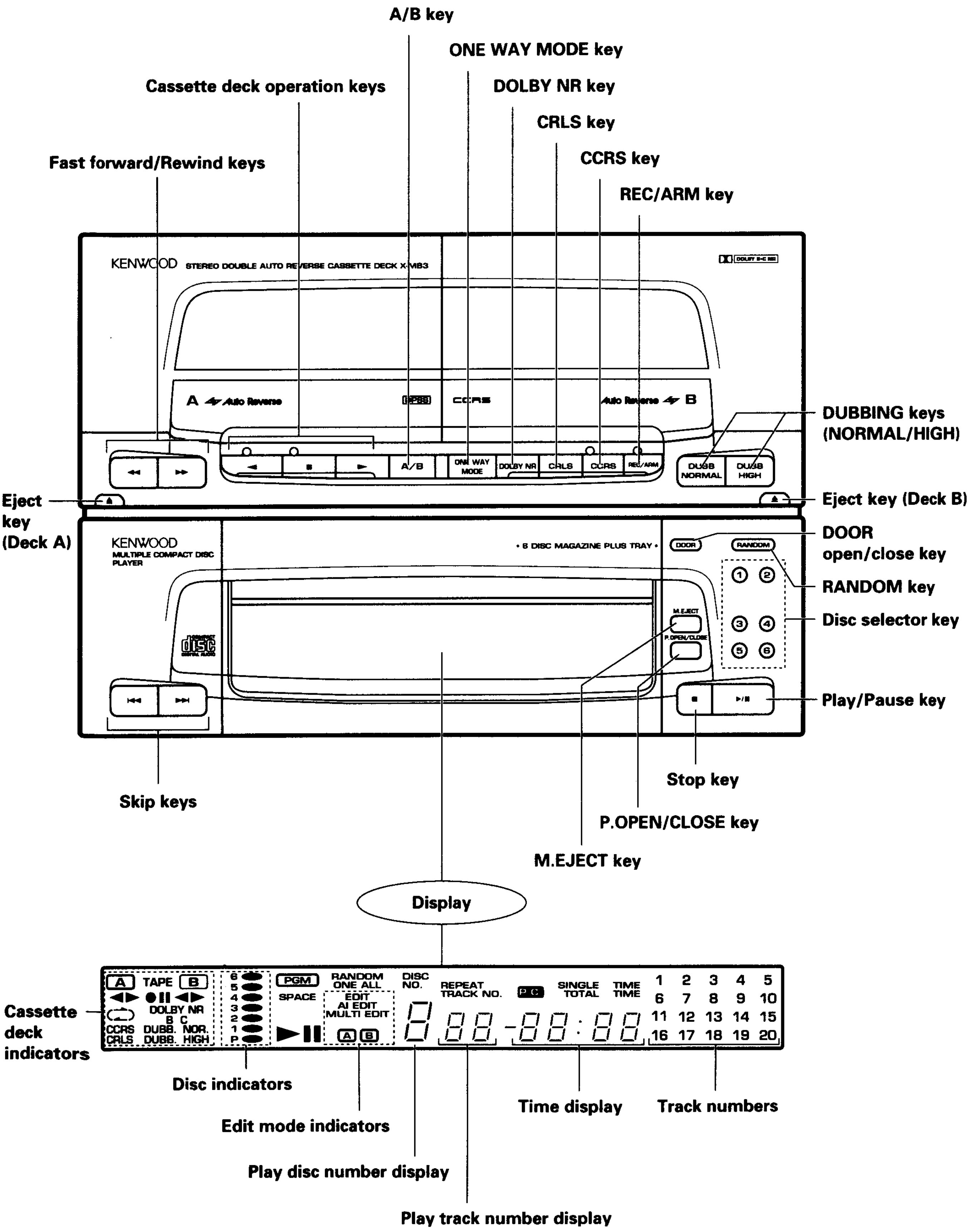
(1) SELECTING THE TEST MODE
Short-circuit the pins 1 and 2 of CN2 of X32-2250. Otherwise, if the DECK PCB is connected, turn the POWER ON while prossing the ▷ (RWD PLAY) key for both DECK and CD to switch to the test mode.

(2) FUNCTIONS OF THE KEYS ENABLED IN THE TEST MODE

	Key name	**Function**	**Indication**
1	PLAY	Focous servo ....ON Tracking servo ....ON Feed servo ....ON	05
2	PLAY (keep KEY pressed)	Focus servo............ON Tracking servo ....OFF Feed servo ....OFF	05→01→04
3	STOP	Servo ....OFF	01
4	▷▷| UP	All FL light up	
5	|◁◁ DOWN	All FL light OFF	Anything besides track NO.

NOTE: Since the DECK PCB (X29-2390A/2) and the display PCB (B/2) are disconnected when checking the operation in the test mode, make sure of installing these PCB once again if FL check is required.

CONTROLS & INDICATORS


A/B key
ONE WAY MODE key
Cassette deck operation keys
DOLBY NR key
CRLS key
Fast forward/Rewind keys
CCRS key
REC/ARM key
KENWOOD STEREO DOUBLE AUTO REVERSE CASSETTE DECK X-MB3
A Auto Reverse
CCRS
Auto Reverse B
DUBBING keys (NORMAL/HIGH)
A/B
ONE WAY MODE
DOLBY NR
CRLS
CCRS
REC/ARM
DUBB NORMAL
DUBB HIGH
Eject key (Deck A)
Eject key (Deck B)
KENWOOD MULTIPLE COMPACT DISC PLAYER
• 6 DISC MAGAZINE PLUS TRAY •
DOOR
RANDOM
DOOR open/close key
RANDOM key
M.EJECT
P.OPEN/CLOSE
Disc selector key
Play/Pause key
Skip keys
Stop key
P.OPEN/CLOSE key
M.EJECT key
Display
A TAPE B
DOLBY NR
B C
CCRS DUBB. NOR.
CRLS DUBB. HIGH
6 5 4 3 2 1 P
PGM
SPACE
RANDOM ONE ALL
EDIT
AI EDIT
MULTI EDIT
A B
DISC NO.
REPEAT TRACK NO.
P.C
SINGLE TOTAL
TIME TIME
1 2 3 4 5
6 7 8 9 10
11 12 13 14 15
16 17 18 19 20
Cassette deck indicators
Disc indicators
Edit mode indicators
Time display
Track numbers
Play disc number display
Play track number display

UD-301/351

DISASSEMBLY FOR REPAIR

***Remove the metallic cabinet from the body beforehand.**

(1) Open the cassette holder by pushing the eject button. Then remove the lid by pushing the hook ❶ located inside the cassette holder by means of a square-bar standard a screwdriver and the like.

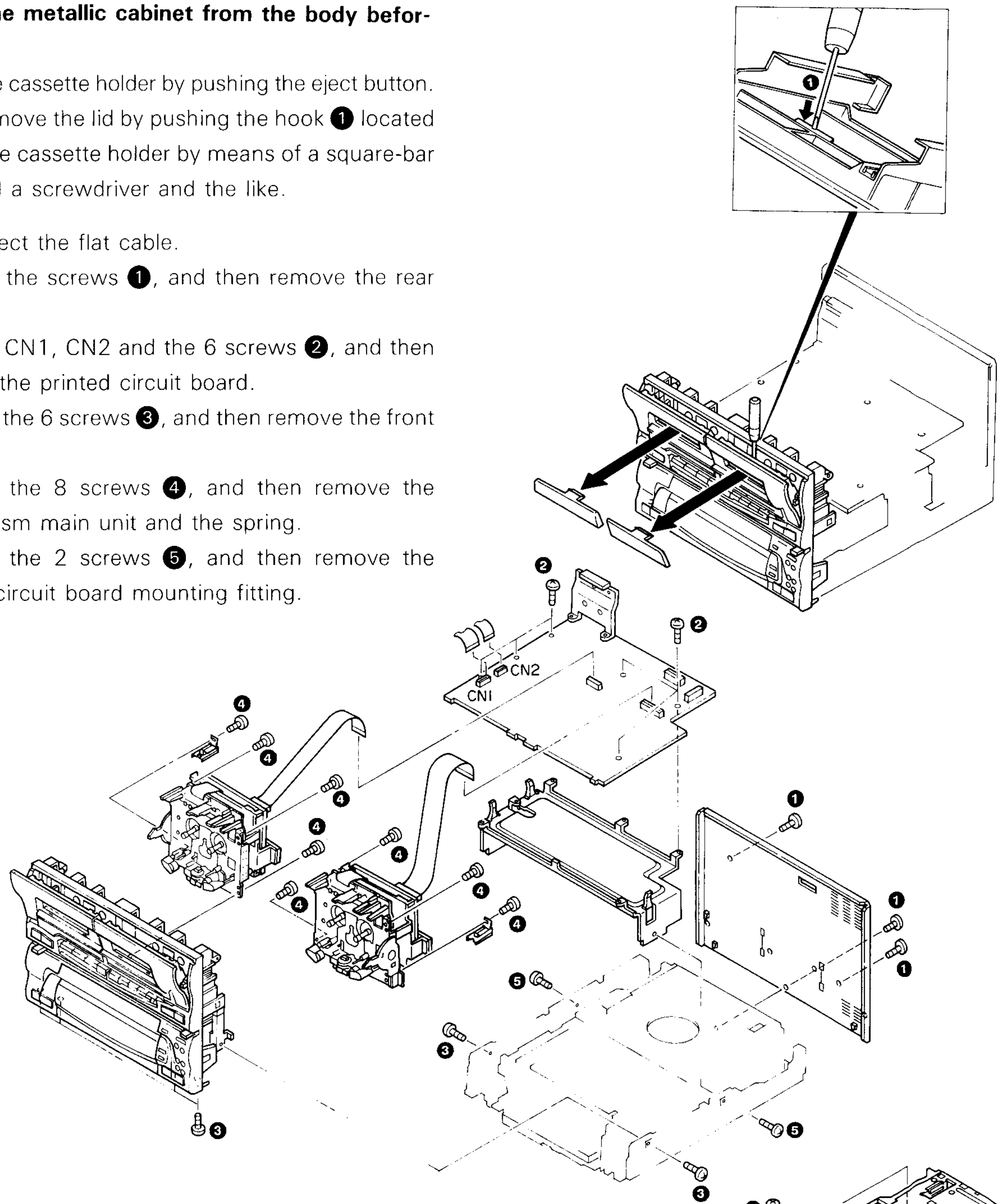
(2) Disconnect the flat cable.

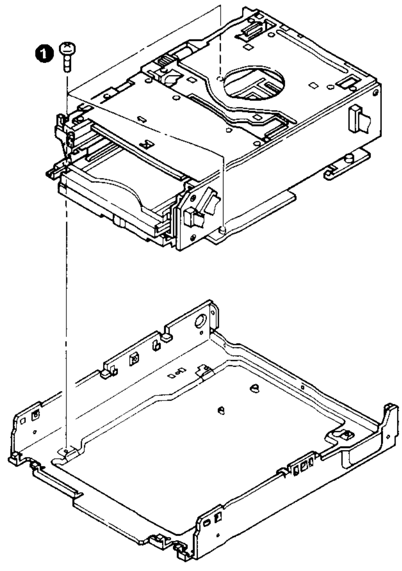
(3) Remove the screws ❶, and then remove the rear panel.
Remove CN1, CN2 and the 6 screws ❷, and then remove the printed circuit board.

(4) Remove the 6 screws ❸, and then remove the front panel.

(5) Remove the 8 screws ❹, and then remove the mechanism main unit and the spring.

(6) Remove the 2 screws ❺, and then remove the printed circuit board mounting fitting.





(7) The CD mechanism can be removed when the 3 screws ❶ are removed.

(Note 1)
Refer to DP-MA5/MA9 for the method to disassemble the mechanism.

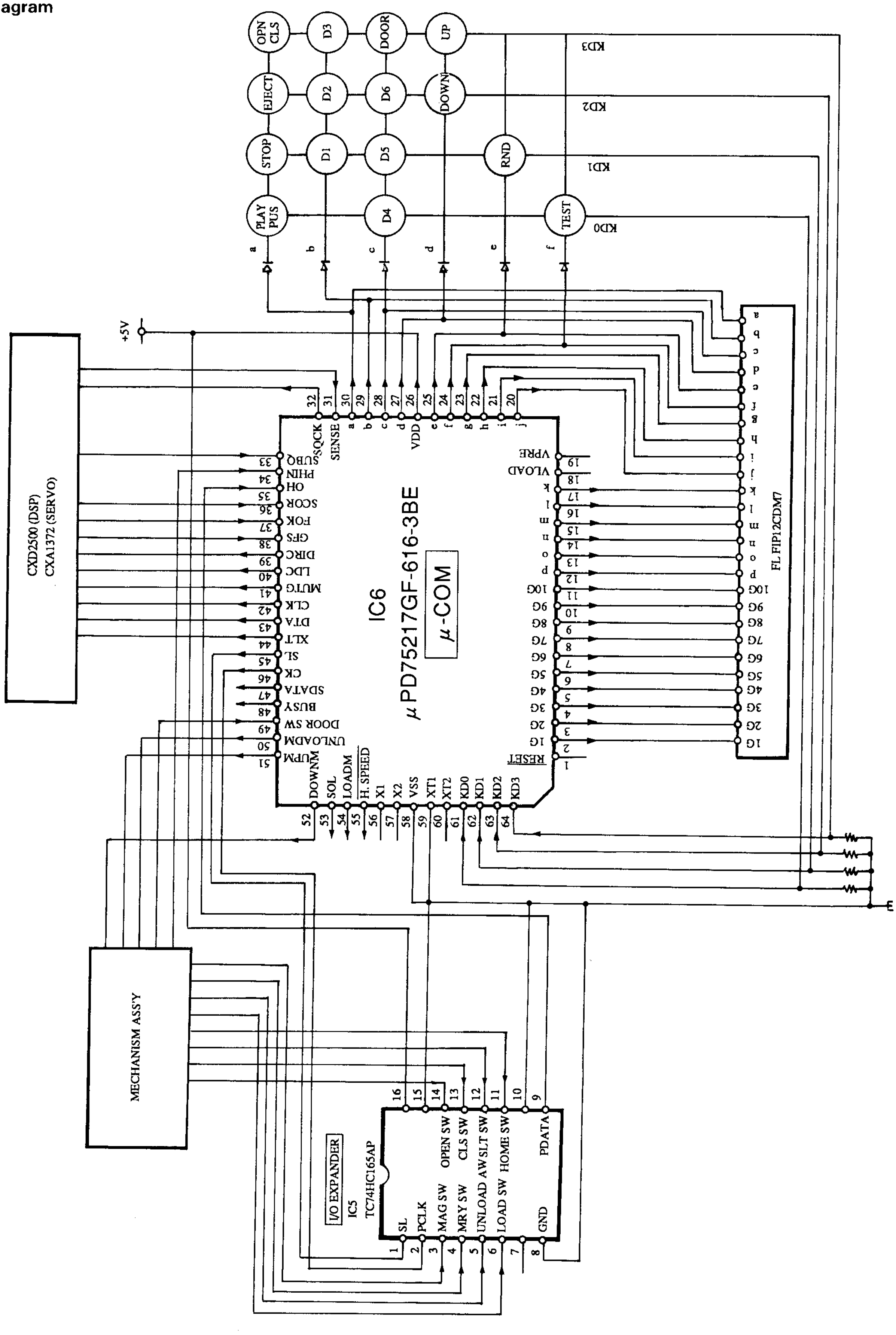
(Note 2)
The FL indication goes out when the rear panel and the cassette printed circuit board (X29-) are removed, but the opepration of the CD can be checked notwithstanding.

CIRCUIT DESCRIPTION

CD

Microprocessor (μPD75217GF-616-3BE):IC6(X32)

Block diagram


OPN CLS
D3
DOOR
UP
EJECT
D2
D6
DOWN
STOP
D1
D5
RND
PLAY PUS
D4
TEST
KD3
KD2
KD1
KD0
a
b
c
d
e
f
+5V
CXD2500 (DSP)
CXA1372 (SERVO)
IC6
μPD75217GF-616-3BE
μ-COM
SQCK
SENSE
VDD
SUBQ
PHIN
HO
SCOR
FOK
GFS
DIRC
LDC
MUTG
CLK
DTA
XLT
SL
CK
SDATA
BUSY
DOOR SW
UNLOADM
NUPM
DOWNM
SOL
LOADM
H. SPEED
X1
X2
VSS
XT1
XT2
KD0
KD1
KD2
KD3
VPRE
VLOAD
RESET
1G
2G
3G
4G
5G
6G
7G
8G
9G
10G
FL FIP12CDM7
MECHANISM ASS'Y
I/O EXPANDER
IC5
TC74HC165AP
SL
PCLK
MAG SW
MRY SW
UNLOAD AW
LOAD SW
GND
OPEN SW
CLS SW
SLT SW
HOME SW
PDATA

CIRCUIT DESCRIPTION

2-2. Pin Description (μPD75217GF-616)

Pin No.	Name	I/O	Description
1	$\overline{\text{RESET}}$	I	Reget input terminal
2 to 11	1G~10G	O	FL digit control terminals.
12 to 17	p~k	O	FL segment control terminals (KEY SCAN).
18	VLOAD	I	Negative power supply for FL driver (−35 V)
19	VPRE	I	Negative power supply for FL grid driver (−5 V)
20 to 25	j~e	O	FL segment control terminals (KEY SCAN)
26	VDD	—	Power supply (+5 V)
27 to 30	d~a	O	FL segment control terminals (KEY SCAN)
31	SENSE	I	SENSE detection terminal from signal processing IC
32	SQCK	O	Q-data reading clock output terminal
33	SUBQ	I	Q-data input terminal
34	PHIN	I	Mechanism photo-interpreter input (PHI)
35	QH	I	Data input terminal from TC74HC165
36	SCOR	I	Sub-code frame sink detection signal terminal
37	FOK	I	POK signal input terminal
38	GFS	I	Frame signal input terminal
39	DIRC	O	Direct control terminal of servo IC
40	LDC	O	Laser signal output terminal
41	MUTG	O	Digital mute output terminal
42	CLK	O	Clock output terminal of sigmnal processing IC
43	DTA	O	Data output terminal of signal processing IC
44	XLT	O	Latch output terminal of signal processing IC
45	SL	O	Latch output terminal of TC74HC165
46	CK	O	Clock output terminal of TC74HC165
47	SDATA	I/O	DATA signal input/output for serial communication
48	BUSY	I/O	BUSY signal input/output for serial communication
49	DOORSW	I	Mechanism door SW input terminal (SW)
50	UNLOADM	O	Mechanism unloading motor control (L. M.)
51	UPM	O	Mechanism UP motor conytrol (V. M.)
52	DOWNM	O	Mechanism DOWN motor control (V. M.)
53	SOL	O	Mechanism solenoid control
54	LOADM	O	Mechanism loading motor control (L. M.)
55	$\overline{\text{H. SPEED}}$	O	Circuit switching output during double speed operatiopn (Active L)
56	X1	I	System clock input terminal
57	X2	—	Unused
58	VSS	—	GND
59	XT1	—	GND connection
60	XT2	—	Unused (Open)
61 to 64	KD0~3	I	Key return input of key matrix

2-3. IC5 Pin Description (I/O EXPANDER: TC74HC165AP)

Pin No.	Name	I/O	Description
1	SL	I	Shift load input terminal
2	PCLK	I	Clock input terminal
3	MAGSW	I	Magazine switch input terminal (SW4)
4	MRYSW	I	Memory switch input terminal (SW3)
5	UNLOADSW	I	Unload switch input terminal (SW5)
6	LOADSW	I	Load switch input terminal (SW5)
7	—	O	Unused
8	GND	—	GND
9	PDATA	O	Data output terminal
10	—	I	Unused
11	HOMESW	I	Home position switch input terminal (SW2)
12	SLTSW	I	Start limit switch (SW1)
13	CLSSW	I	Close switch input terminal (SW6)
14	OPNSW	I	Open switch input terminal (SW6)
15	—	I	Unused
16	—	—	Power supply (+5 V)

TEST MODE

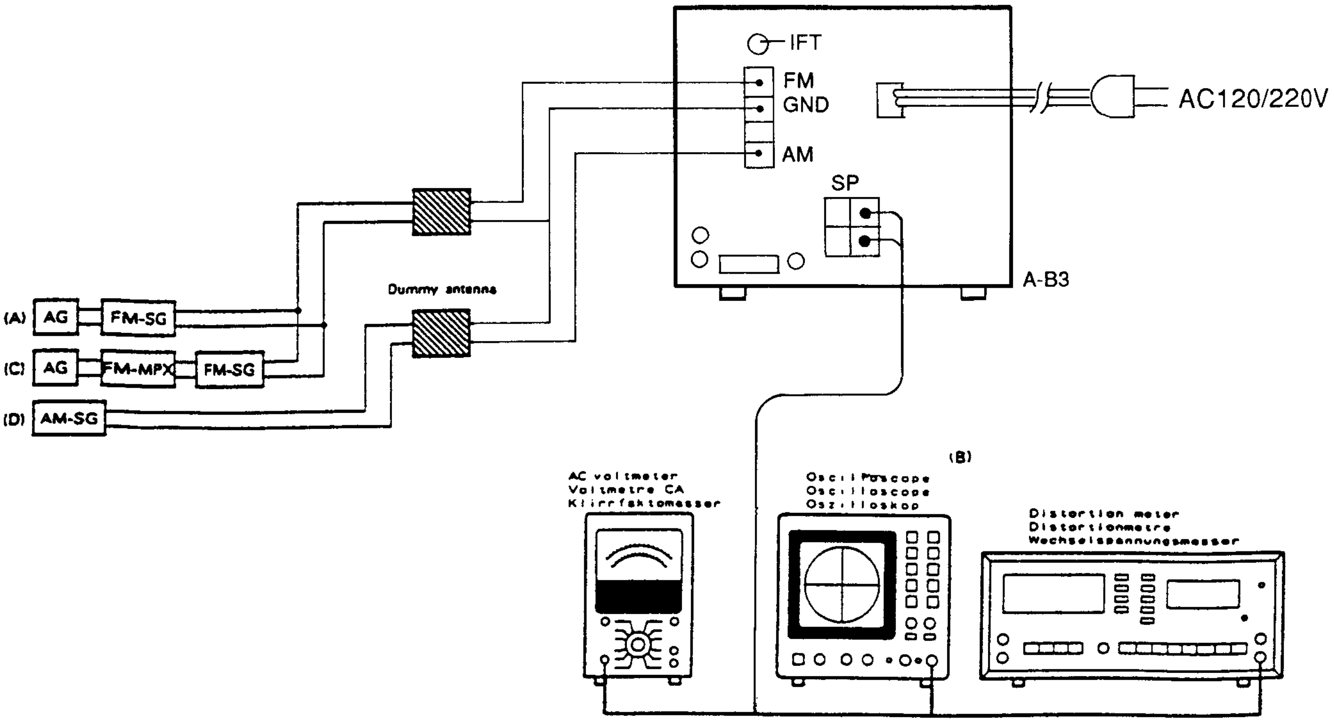
1) The operation gets in the test mode when pins (2) and (3) of X32-2280 are short-circuited.
2) Load the compact disc (CD) for check in the #6 magazine pack.
3) Enabled keys and functions

	Key name	Function	Indication
1	Disc No. key 6	The disc is loaded	601
2	STOP	Focus servo..............OFF Tracking servo...........OFF Feed servo................OFF	601
3	RANDOM	Focus servo..............OFF Tracking servo...........OFF Feed servo................OFF	603
4	PLAY	Servo ON	605
5	DISC 1	Trays of DISC 1 to DISC 6 are pulled	A flickers
6	DISC 2	Trays of DISC 3 to DISC 6 are pulled and TOC is read. TEST MODE is cancelled after finishing that, and DISC6 is played back.	B flickers
7	UP ►►	All FL light up.	
8	DOWN ◄◄	All FL are light OFF	TRACK No. flickers

ADJUSTMENT

TUNER
A-B3/B3L

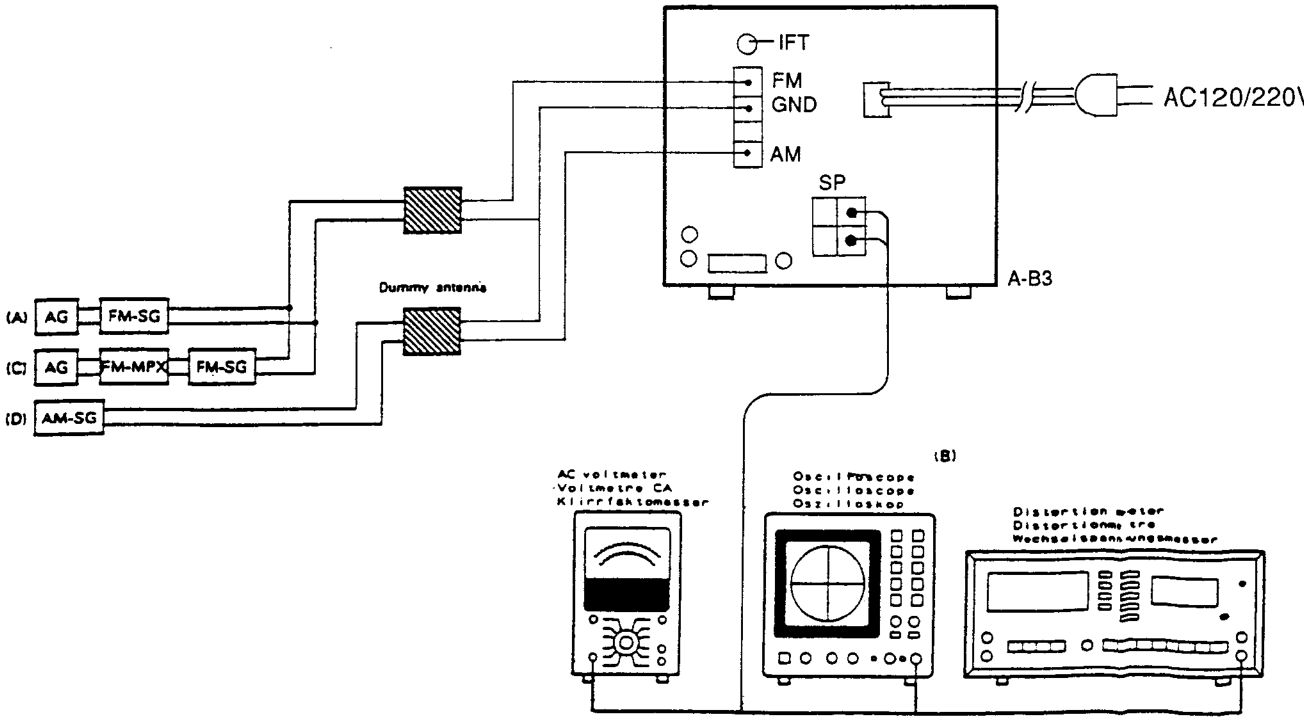
No	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION			SELECTOR: FM				
1	DISCRIMINATOR	(A) 98.0 MHz 1 kHz, ± 75 kHz dev (M, X type) 1 kHz, ± 40 kHz dev (E, T type) 60 dBμ (ANT input)	Connect a DC voltmeter between TP3 and Tp4. (X05-)	MONO 98.0 MHz	L3	0 V	(a)
2	DISTORTION (STEREO)	(C) 98.0 MHz 1 kHz, ±68.25 kHz dev Pilot: ±7.5 kHz dev (M, X type) 1 kHz, ±40 kHz dev Pilot: ±6 kHz dev (E, T type) 60 dBμ (ANT input)	(B)	AUTO 98.0 MHz	L1 IFT (W02-)	Minimum distortion	
3	SEPARATION (E, T type only)	(C) 98.0 MHz 1 kHz, ± 40 kHz dev Pilot ± 6 kHz dev Selector: L or R 60 dBμ (ANT input)	(B)	AUTO 98.0 MHz	VR3 (X05-)	Minimum crosstalk	
4	TUNING LEVEL	(A) 98.0 MHz 1 kHz, ± 75 kHz dev (M, X type) 1 kHz, ± 45 kHz dev (E, T type) 20 dBμ (ANT input) 75 Ω	(B)	AUTO or MONO 98.0 MHz	VR1 (X05-)	Adjust VR1 and stop at the point where ED1 (TUNED) goes on.	
AM (MW) SECTION			SELECTOR: AM (MW)				
(1)	TUNING LEVEL	(D) 990 kHz 400 Hz, 30% mod 26 dBμ (ANT input)	(B)	990 kHz	(X05-) VR2	Adjust VR2 and stop at the point where ED1 (TUNED) goes on.	


IFT
FM
GND
AM
SP
AC120/220V
A-B3
Dummy antenna
(A) AG FM-SG
(C) AG FM-MPX FM-SG
(D) AM-SG
(B)
AC voltmeter
Voltmetre CA
Klirrfaktomesser
Oscilloscope
Oscilloscope
Oszilloskop
Distortion meter
Distortionmetre
Wechselspannungsmesser

REGLAGE

A-B3/B3L

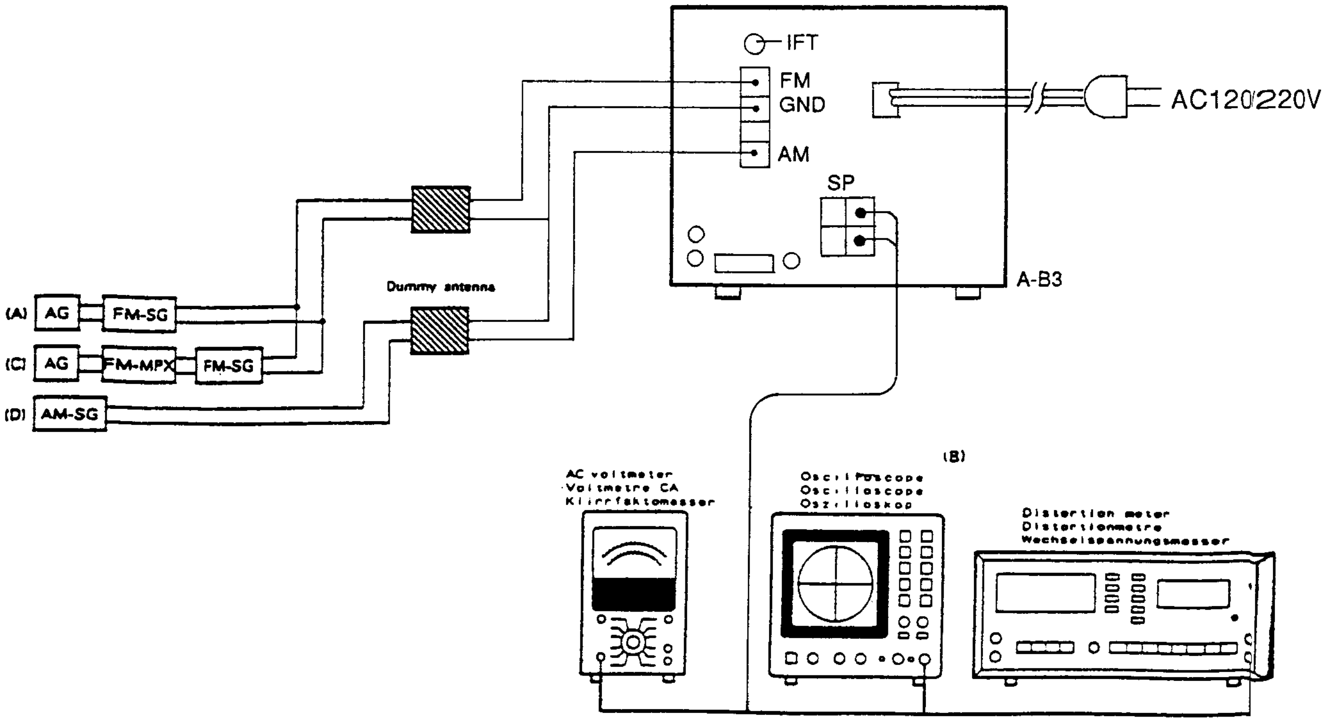
No.	Sujet	Réglage d'entrée	Réglage de sortie	Réglage du TUNER	Point d'ajustement	Méthode d'ajustement	FIG.
SECTION FM							
1	DISCRIMINATION	(A) 98,0 MHz 1 kHz, ± 75 kHz disp. (Type M, X) 1 kHz, ± 40 kHz disp. (Type E, T) 60 dBμ (Entrée ANT)	Connecter un voltmètre DC entre TP3 et TP4. (X05-)	MONO 98,0 MHz	L3	0 V	(a)
2	DISTORSION (STEREO)	(C) 98,0 MHz 1 kHz, ±68,25 kHz disp. Pilote: ±7,5 kHz disp. (Type M, X) 1 kHz, ±40 kHz disp. Pilote: ±6 kHz disp. (Type E, T) 60 dBμ (Entrée ANT)	(B)	AUTO 98,0 MHz	L1 IFT (W02-)	Distorsion minimum	
3	SEPARATION (Type E, T seulement)	(C) 98,0 MHz 1 kHz, ± 40 kHz disp. Pilote: ± 6 kHz disp. Sélecteur: L ou R 60 dBμ (Entrée ANT)	(B)	AUTO 98,0 MHz	VR3 (X05-)	Transmodulation minimum	
4	NIVEAU D'ACCORD	(A) 98,0 MHz 1 kHz, ± 75 kHz disp. (Type M, X) 1 kHz, ± 45 kHz disp. (Type E, T) 20 dBμ (Entrée ANT) 75 Ω	(B)	AUTO ou MONO 98,0 MHz	VR1 (X05-)	Ajuster VR1 et arrêter au point où FD1 (TUNED) s'allume.	
SECTION AM (OM)			SELECTEUR: AM (OM)				
(1)	NIVEAU D'ACCORD	(D) 990 kHz 400 Hz, 30% mod 26 dBμ (Entrée ANT)	(B)	990 kHz	(X05-) VR2	Ajuster VR2 et arrêter au point où ED1 (TUNED) s'allume.	


IFT
FM
GND
AM
SP
AC120/220V
A-B3
Dummy antenna
(A) AG FM-SG
(C) AG FM-MPX FM-SG
(D) AM-SG
(B)
AC voltmeter
Voltmetre CA
Klirrfaktomesser
Oscilloscope
Oscilloscope
Oszilloskop
Distortion meter
Distortionmètre
Wechselspannungsmesser

ABGLEICH

A-B3/B3L

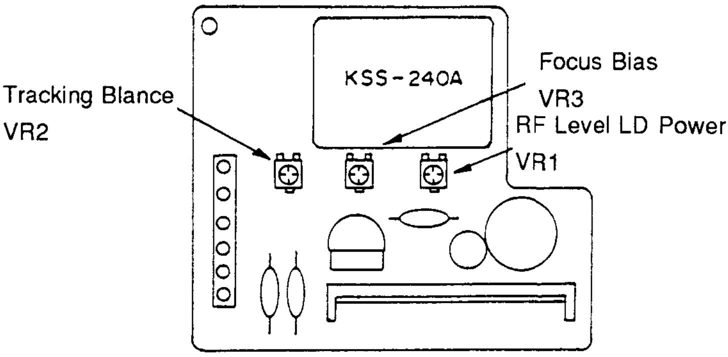
Nr.	GEGENSTAND	EINGANGSEINSTELLUNGEN	AUSGANGSEINSTELLULNGEN	TUNER-EIN-STELLUNGEN	ABGLEICH-PUNKTE	ABGLEICHEN FÜR	ABB.
UKW-TEIL			WÄHLER: FM				
1	DISKRIMINATOR	(A) 98,0 MHz 1 kHz, ± 75 kHz Abw (M-, X-Typ) 1 kHz, ± 40 kHz Abw (E-, T-Typ) 60 dBμ (ANT-Eingang)	Einen Gleichspannungsmesser zwischen TP3 und TP4 schließen. (X05-)	MONO 98,0 MHz	L3	0 V	(a)
2	VERZERRUNGEN (STEREO)	(C) 98,0 MHz 1 kHz, ±68,25 kHz Abw Pilot: ±7,5 kHz Abw (M-, X-Typ) 1 kHz, ±40 kHz Abw Pilot: ±6 kHz Abw (E-, T-Typ) 60 dBμ (ANT-Eingang)	(B)	AUTO 98,0 MHz	L1 IFT (W02-)	Minimale Verzerrungen	
3	TRENNUNG (Nur E-, T-Typ)	(C) 98,0 MHz 1 kHz, ± 40 kHz Abw Pilot ± 6 kHz Abw Wähler: L oder R 60 dBμ (ANT-Eingang)	(B)	AUTO 98,0 MHz	VR3 (X05-)	Minimales Übersprechen	
4	ABSTEMMPEGEL	(A) 98,0 MHz 1 kHz, ± 75 kHz Abw (M-, X-Typ) 1 kHz, ± 45 kHz Abw (E-, T-Typ) 20 dBμ (ANT-Eingang) 75 Ω	(B)	AUTO oder MONO 98,0 MHz	VR1 (X05-)	VR1 auf die Position einstellen, in der ED1 (TUNED) aufleuchtet.	
AM- (MW-) TEIL			WÄHLER: AM (MW)				
(1)	ABSTIMMPEGEL	(D) 990 kHz 400 Hz, 30% Mod 26 dBμ (ANT-Eingang)	(B)	990 kHz	(X05-) VR2	VR2 auf die Position einstellen, in der ED1 (TUNED) aufleuchtet.	


IFT
FM
GND
AM
SP
AC120/220V
A-B3
Dummy antenna
(A)
AG
FM-SG
(C)
AG
FM-MPX
FM-SG
(D)
AM-SG
(B)
AC voltmeter
Voltmetre CA
Klirrfaktomesser
Oscilloscope
Oscilloscope
Oszilloskop
Distortion meter
Distortionmetre
Wechselspannungsmesser

ADJUSTMENT

HANDLING PRECAUTIONS

The pickup (KSS-240A) is assembled and adjusted with high precision by the parts' manufacturer. Refrain from disassembling and adjusting it carelessly.

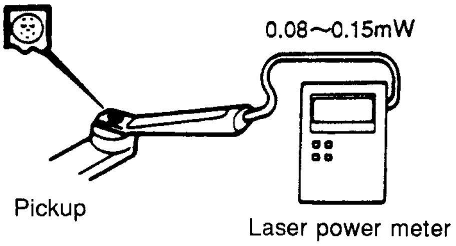

Tracking Blance
VR2
KSS-240A
Focus Bias
VR3
RF Level LD Power
VR1

CD PLAYER (X-B3)

Order	Item	Input setting	Output setting	Player setting	Adjustment point	Adjustment method	Fig.
1	Laser power	—	Place the sensor unit of the optical poer meter on the pickup lens.	Short-circuit the test pin, and set the operation to the TEST MODE.	—	0.08 to 0.15 mW The pickup is OK of RF level is 1.0 Vp-p TE (servo OPEN) 0.5 Vp-p or more and the diffraction lattice is correct with the aforementioned power.	(a)
2	Focus gain	TEST DISC TYPE 4 Enter 1.0 kHz 0.1 Vrms signal in pins 2-3 of CN3.	Attach LPF to pins 2 and 3 of CN3, and then connect an oscilloscope or AC voltmeter.	Push the PLAY key.	FOCUS GAIN VR2	Adjust the reading of the 2 voltmeters to the same value.	(b)
3	Tracking gain	TEST DISC TYPE 4 Enter 1.3 kHz 0.1 Vrms signal in pins 5-6 of CN3.	Attach LPF to pins 5 and 6 of CN3, and then connect an oscilloscope or AC voltmeter.	Push PLAY key.	TRACKING GAIN VR1	Adjust the readings of the 2 votmeters to the same value.	(c)

Note: TEST DISC TYPE4 — SONY YEDS-18 TEST DISC or equiralent.
LPF — 47 k + 390 pF or so.

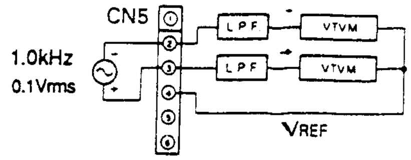
(a) Adjustment Laser power


0.08~0.15mW
Pickup
Laser power meter

Adjustment of (b) focus gain and (c) tracking gain.

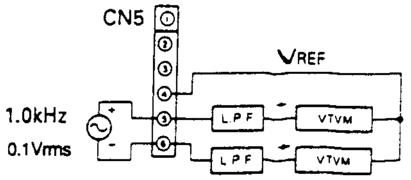
FOCUS GAIN

The readings of the two AC voltmeters should be the same.


CN5
1.0kHz
0.1Vrms
LPF
VTVM
LPF
VTVM
VREF

TRACKING GAIN

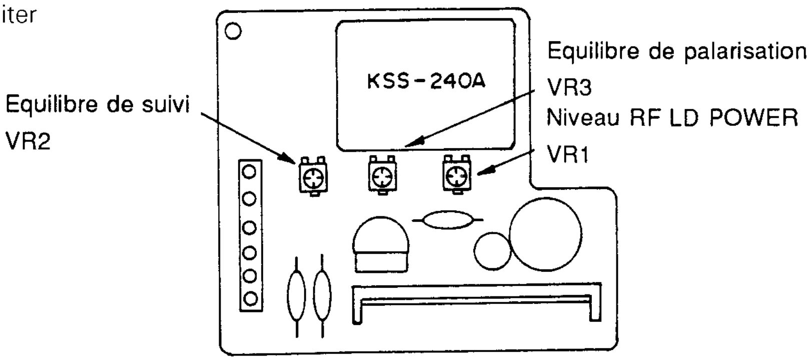
The readings of the two AC voltmeters should be the same.


CN5
VREF
1.0kHz
0.1Vrms
LPF
VTVM
LPF
VTVM

REGLAGE

PRECAUTIONS DE MANIPULATION

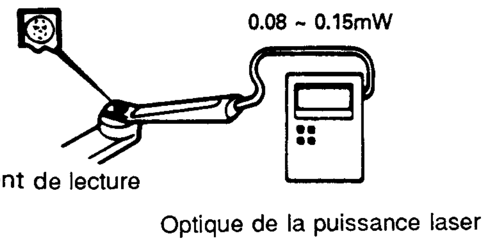
L'élément de lecture (KSS-240A) est monté et ajusté avec grande précision par le fabricant de pièces. Eviter de le démonter et de l'ajuster sans faire attention.


Equilibre de suivi
VR2
KSS-240A
Equilibre de palarisation
VR3
Niveau RF LD POWER
VR1

Ordre	Sujet	Réglage d'entrée	Réglage de sortie	Réglage de platine	Point d'ajustement	Méthode d'ajustement	Fig.
1	Puissance laser	–	Placer l'unité de capteur du compteur de puissance optique sur l'optique de lecture.	Court-circuiter la broche d'essai et régler l'opération sur MODE D'ESSAI.	–	0,08 à 0,15 mW L'élément de lecture est OK si le niveau RF est de 1,0 Vc-c (servo OUVERT), 0,5 Vc-c ou plus et le treillis de diffraction est correct avec la puissance mentionnée cidessus.	(a)
2	Gain de focus	DISQUE D'ESSAI TYPE 4 Entrer un signal de 1,0 kHz 0,1 Vrms dans les broches 2-3 de CN3.	Fixer LPF aux broches 2 et 3 de CN3, puis connecter un oscillocope ou un voltmètre AC.	Enfoncer la touche PLAY.	FOCUS GAIN VR2	Ajuster l'indication des 2 volltmètres à la même valeur.	(b)
3	Gain de suivi	DISQUE D'ESSAI TYPE 4 Entrer un signal de 1,3 kHz 0,1 Vrms dans les broches 5-6 de CN3.	Fixer LPF aux broches 5 et 6 de CN3, puis connecter un oscilloscope ou un voltmètre AC.	Enfoncer la touche PLAY.	TRACKING GAIN VR1	Ajuster l'indication des 2 voltmètres à la même valeur.	(c)

Note: DISQUE D'ESSAI TYPE 4 — SONY YEDS-18 TEST DISC ouéquivalent.
LPF — 47 k + 390 ou autre.

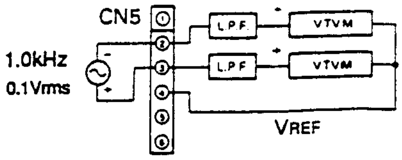
(a) Ajustement de la puissance laser


0.08 ~ 0.15mW
Elément de lecture
Optique de la puissance laser

Ajustement de (b) gain de focus et (c) gain de suivi.

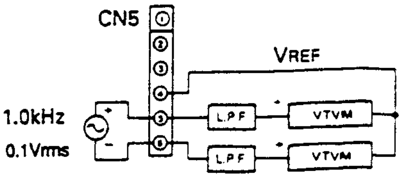
GAIN DE FOCUS

Les indications des deux voltmètres AC doivent être identiques.


CN5
1.0kHz
0.1Vrms
LPF
VTVM
LPF
VTVM
VREF

GAIN DE SUIVI

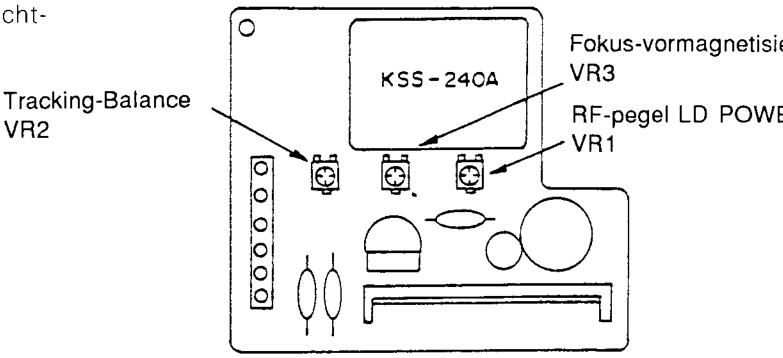
Les indications des deux voltmètres AC doivent être identiques.


CN5
VREF
1.0kHz
0.1Vrms
LPF
VTVM
LPF
VTVM

ABGLEICH

VORSICHTSMASSREGELN FÜR DIE HANDHABUNG

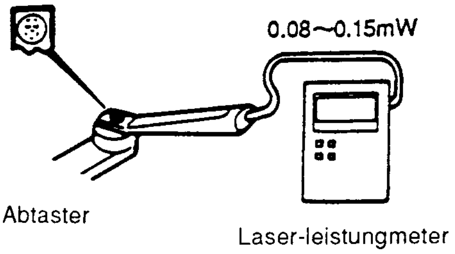
Der Abtaster (KSS-240A) wurde vom Teilehersteller mit hoher Genauigkeit gefertigt und eingestellt. Nicht achtlos zerlegen oder einstellen.


Tracking-Balance
VR2
KSS-240A
Fokus-vormagnetisie
VR3
RF-pegel LD POWE
VR1

Reihenfolge	Gegenstand	Eingangseinstellung	Ausgangseinstellung	Player-Einstellung	Einstellpunkt	Einstellverfahren	Abb.
1	Laser-Leistung	—	Die Sensoreinheit des Optikleistungsmeters am Abtaster ansetzen.	Den Test-Pin kurzschließen, und den TEST-Modus aktivieren.	—	0,08 bis 0,15 mW Der Abtaster ist in Ordnung, wenn der HF-Pegel 1,0 Vss, TE (Servo OPEN) 0,5 Vss oder mehr beträgt, und das optische Gitter unter der obengenannten Leistung stimmt.	(a)
2	Fokus-Verstärkung	TEST-DISC TYP 4 Pins 2-3 von CN3 1,0-kHz-0,1-Veff-Signal zuführen.	LPF an Pin 2 und 3 von CN3 anbringen, dann ein Oszilloskop oder einen Wechselspannungsmesser anschließen.	Die PLAY-Taste drücken.	FOKUS-VERSTÄRKUNG VR2	Die Anzeige der beiden Spannungsmesser auf denselben Wert einstellen.	(b)
3	Tracking-Verstärkung	TEST-DISC TYP 4 Pins 5-6 von CN3 1,3-kHz-0,1-Veff-Signal zuführen.	LPF an Pin 5 und 6 von CN3 anbringen, dann ein Oszilloskop oder sinen Wechselspannungsmesser anschließen.	Die PLAY-Taste drücken.	TRACKING-VERSTÄRKUNG VR1	Die Anzeigen der beiden Spannungsmesser auf denselben Wert einstellen.	(c)

Hinweis: TEST-DISC TYP4 — SONY YEDS-18-TEST-DISC oder gleichwertige.
LPF — 47 k + 390 pF o.ä..

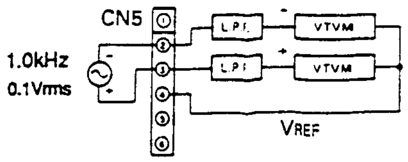
(a) Einstellung der Laser-Leistung


0.08~0.15mW
Abtaster
Laser-leistungmeter

Einstellung von (b) Fokus-Verstärkung und (c) Tracking-Verstärkung.

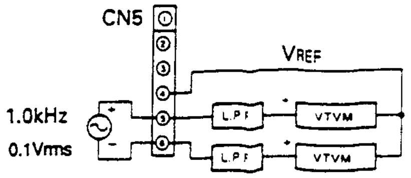
FOKUS-VERSTÄRKUNG

Die beiden Wechselspannungsmesser sollen denselben Wert anzeigen.

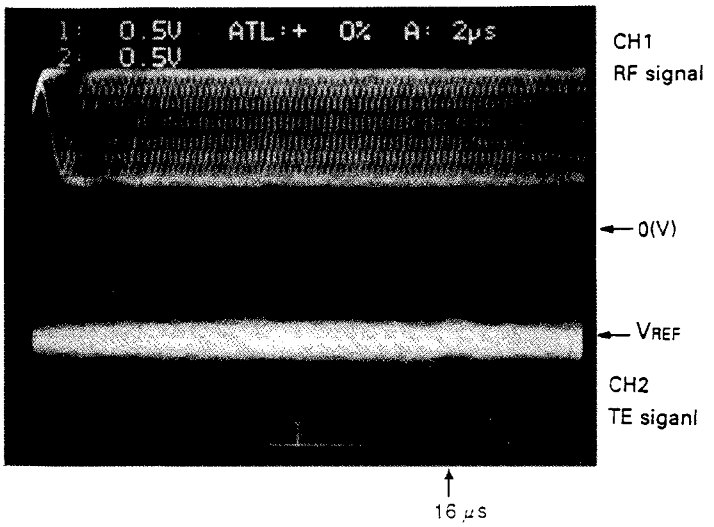

CN5
1.0kHz
0.1Vrms
L.P.F.
L.P.F
VTVM
VTVM
VREF

TRACKING-VERSTÄRKUNG

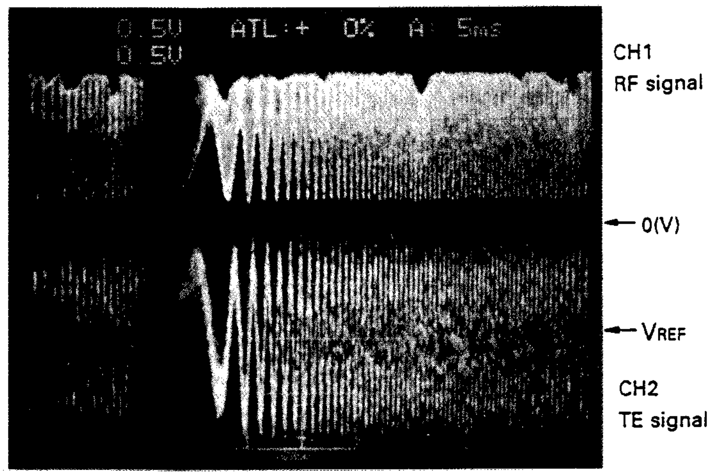
Die beiden Wechselspannungsmesser sollen denselben Wert anzeigen.


CN5
VREF
1.0kHz
0.1Vrms
L.P.F
L.P.F
VTVM
VTVM

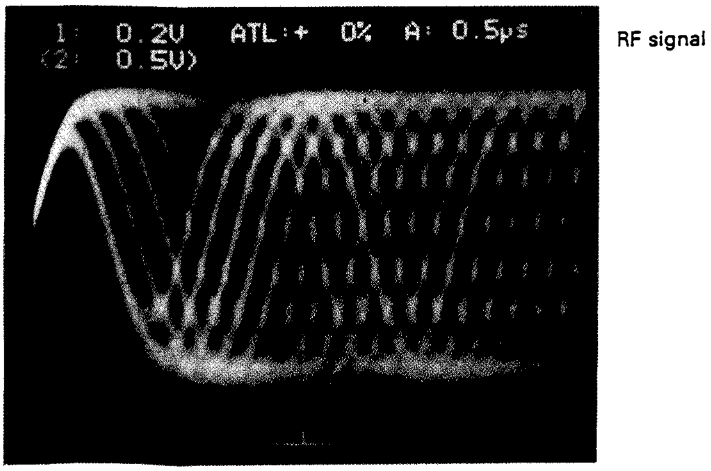
ADJUSTMENT/REGLAGE/ABGLEICH



- RF signal and E. Spot signal during the TEST MODE (PLAY).
- If the diffraction lattice is correctly adjusted, the trigger (projection) of the E. Spot can be recognized approximately 16 micro-seconds after the RF signal.
- Signal RF et signal Spot E. pendant le MODE D'ESSAI (PLAY).
- Si le treillis de diffraction est correctement ajusté, le déclenchement (projection) du Spot E. peut être reconnu environ 16 micro-secondes après le signal RF.
- HF-Signal und E. Spot-Signal während TESt-Modus (PLAY).
- Bei richtiger Einstellung des optischen Gitters kann der Auslösser (Projektion) von E. Spot etwa 16 ms nach dem HF-Signal erkannt werden.



- RF signal and T. Error during the TEST MODE (Focus ON), (TEST DISC TYPE: 4)
- Signal RF et Erreur f pendant le MODE D'ESSAI (Focus ON), (DISQUE D'ESSAI TYPE: 4).
- HF-Signal und T. Error während TEST-Modus (Fokus ON), (TEST-DISC TYP: 4).



- RF signal during TEST MODE (PLAY).
- Signal RF pendant le MODE D'ESSAI (PLAY).
- HF-Signal während TEST-Modus (PLAY).

ADJUSTMENT

CD PLAYER (X-MB3)

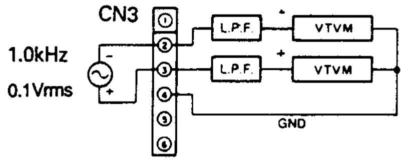
Magazine pack is required when carrying out the adjustments In the test mode

Order	Item	Input setting	output setting	Player setting	Adjustment point	Adjustment method	Fig.
1	Tracking error balance	TEST DISC TYPE 4	CH1: RF Check terminals (CH3-1) CH2: TE Connect oscilloscope with check terminals (CH3-6)	Load the disk in the tray #6 of the magazine, ad then switch the operation to the TEST mode. (Press the RND key). Make sure that the display shows 03.	TE·BALANCE VR2	Symmetric in the vertical direction or DC = 0 ± 0.05 V	(a)
2	Focus error balance	TEST DISC TYPE 4	CH1: RF Check terminals (CH3-1) CH2: TE Connect oscilloscope with check terminals (CH3-6)	Switch the operation to the TEST mode, and push the PLAY key. Make sure that the display shows 05..	FE·BALANCE VR1	Best eye pattern The pick-up is OK when the RF level is 1.0 Vp-p, the TE (with servo OFF) is 1.5 Vp-p or more, and the diffraction lattice Is correct.	(b)
3	Focus gain	TEST DISC TYPE 4 Enter 1.0 kHz 0.1 Vrms signal in pins 2-3 of CN3	Attach LPF to pins 2 and 3 of CN3, and then connect an oscilloscope or AC voltmeter.	Switch the operation to the TEST mode, and push the PLAY key. Make sure that the display shows 05.	FOCUS GAIN VR3	Adjust the readings of the 2 voltmeters to the same value.	(c)
4	Tracking gain	TEST DISC TYPE 4 Enter 1.3 kHz 0.1 Vrms signalin pins 5-6 of CN3.	Attach LPF to pins 5 and 6 of CN3, and then connect an oscilloscope or AC voltmeter.	Switch the operation to the TREST mode, and push the PLAY key. Make sure that the display shows 05.	TRACKING GAIN VR4	Adjust the readings of the 2 voltmeters to the same value.	(c)

(c) Adjustment of focus gain and tracking gain.

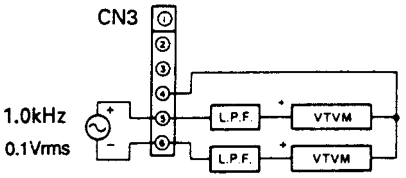
FOCUS GAIN

The readings of the two AC voltmeters should be the same.



TRACKING GAIN

The readings of the two AC voltmeters should be the same.



REGLAGE

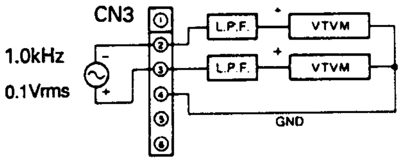
Le pack magasin est requis pour effectuer les ajustements dans le mode d'essai.

Ordre	Sujet	Réglage d'entrée	Réglage de sortie	Réglage de platine	Point d'ajustement	Méthode d'ajustement	Fig.
1	Equilibre d'erreur de suivi	DISQUE D'ESSAI TYPE 4	CH1: RF Vérifier les bornes (CH3-1) CH2: TE Connecter l'oscilloscope avec les bornes de contrôle (CH3-6)	Charger le disque sur le plateau #6 du magasin, puis passer dans le mode d'ESSAI. (Appuyer sur la touche RND). S'assurer que l'affichage indique 03.	TE-BALANCE VR2	Symétrique dans le sens vertical ou DC = 0 ± 0.05 V	(a)
2	Equilibre d'erreur de focus	DISQUE D'ESSAI TYPE 4	CH1: RF Vérifier les bornes (CH3-1) CH2: TE Connecter l'oscilloscope avec les bornes de contrôle (CH3-6)	Changer l'opération dans le mode d'ESSAI et appuyer sur la touche PLAY. S'assurer que l'affichage indique 05.	FE-BALANCE VR1	Meilleur motif à l'œil La lecture est OK lorsque le niveau RF est de 1,0 Vc-c le TE (avec servo OFF) est de 1,5 Vc-c ou plus, et le treillis de diffraction est correct.	(b)
3	Gain de focus	DISQUE D'ESSAI TYPE 4 Entrer un signal de 1,0 kHz 0,1 Vrms dans les broches 2, 3 de CN3	Attacher LPF aux broches 2 et 3 de CN3, puis connecter un oscilloscope ou un voltmètre AC.	Changer l'opération dans le mode d'ESSAI et appuyer sur la touche PLAY. S'assurer que l'affichage indique 05.	GAIN DE FOCUS VR3	Ajuster les indications des 2 voltmètres à la même valeur.	(c)
4	Gain de suivi	DISQUE D'ESSAI TYPE 4 Entrer un signal de 1,3 kHz 0,1 Vrms dan sles broches 5, 6 de CN3.	Attacher LPF aux broches 5 et 6 de CN3, puis connecter un oscilloscope ou un voltmètre AC.	Changer l'opération dans le mode d'ESSAI et appuyer sur la touche PLAY. S'assurer que l'affichage indique 05.	GAIN DE SUIVI VR4	AJuster les indications des 2 voltmètres à la même valeur.	(c)

(c) Ajustement du gain de focus et du gain de suivi.

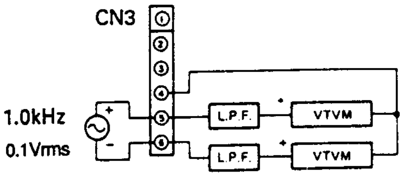
GAIN DE FOCUS

Les indications des deux voltmètres AC doivent être identiques.



GAIN DE SUIVI

Les indications des deux voltmètres AC doivent être identiques.



ABGLEICH

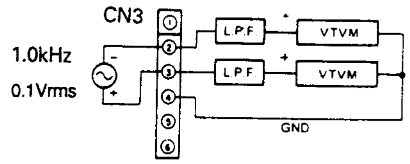
Für Einstellungen im Test-Modus ist Magazin-Pack erforderlich

Reihenfolge	Gegenstand	Eingangseinstellung	Ausgangseinstellung	Player-Einstellung	Einstellpunkt	Einstellverfahren	Abb.
1	Tracking-Fehler-Balance	TEST-DISC TYP 4	CH1: RF Prüfkontakte (CH3-1) CH2: TE Oszilloskop an Prüfkontakte (CH3-6) anschließen	Disc in Fach Nr. 6 des Magazins einsetzen, dann den TEST-Modus aktivieren. (Die RND-Taste drücken). Im Display muß 03 erscheinen.	TE-BALANCE VR2	Symmetrisch in senkrechter Richtung oder DC = 0 ± 0.05 V	(a)
2	Fokus-Fehler-Balance	TEST-DISC TYP 4	CH1: HF Prüfkontakte (CH3-1) CH2: TE Oszilloskop an Prüfkontakte (CH3-6) anschließen	TEST-Modus aktivieren, und die PLAY-Taste drücken. Im Display muß 05 erscheinen.	FE-BALANCE VR1	Bestes Augendiagramm Der Abtaster ist in Ordnung, wenn der HF-PEgel 1,0 Vss, TE (mit Servo OFF) 1,5 Vss oder kmehr beträgt, und das optische Gitter stimmt.	(b)
3	Fokus-Verstärkung	TEST-DISC TYP 4 Enter 1.0 kHz Pins 2-3 von CN3 1,0-kHz-0,1-Veff-Signal zuführen	LPF an Pin 2 und 3 von CN3 anbringen, dann ein Oszilloskop oder einen Wechselspannungsmesser anschließen.	TEST-Modus aktivieren, und die PLAY-Taste drücken. Im Display muß 05 erscheinen.	FOKUS-VERSTÄRKUNG VR3	Die Anzeigen der beiden Spannungsmesser auf denselben Wert einstellen.	(c)
4	Tracking-Verstärkung	TEST-DISC TYP 4 Pins 5-6 von CN3 1,3-kHz-0,1-Veff-Signal zuführen.	LPF an Pins 5 und 6 von CN3 anbringen, dann ein Oszilloskop oder oder einen Wechselspannungsmesser anschließen.	TEST-Modus aktivieren, und die PLAY-Taste drücken. Im Display muß 0.5 erscheinen.	TRACKING-VERSTÄRKUNG VR4	Die Anzeigen der beiden Spannungsmesser auf denselllben Wert einstellen.	(c)

(c) Einstellung von Fokus-Verstärkung und Tracking-Verstärkung.

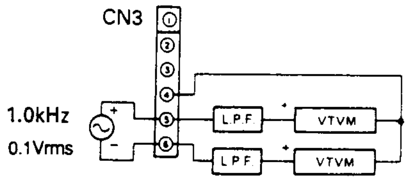
FOKUS-VERSTÄRKUNG

Die beiden Wechselspannungsmesser sollen denselben Wert anzeigen.



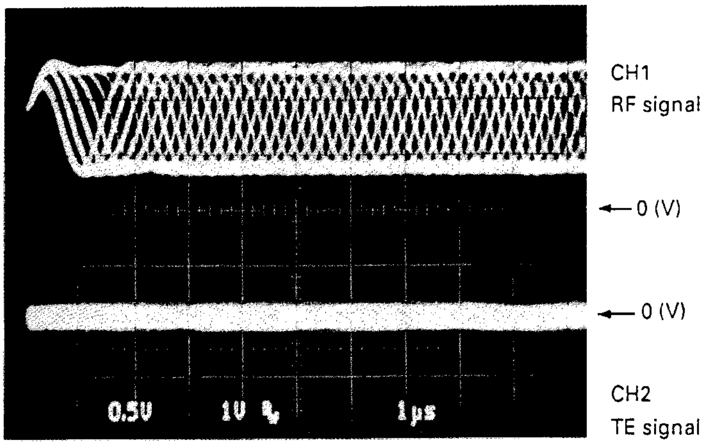
TRACKING-VERSTÄRKUNG

Die beiden Wechselspannungsmesser sollen denselben Wert anzeigen.



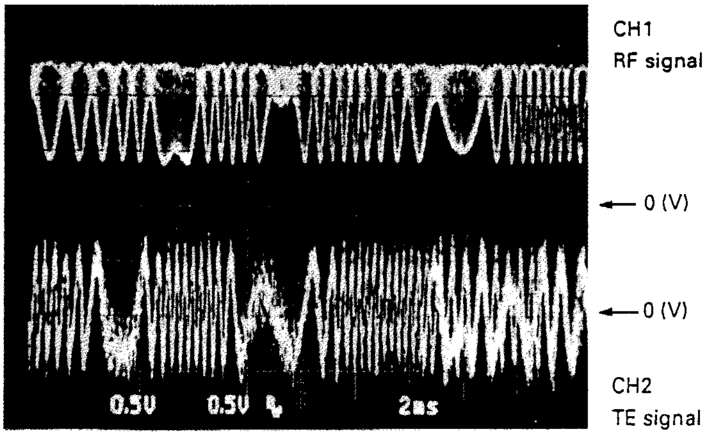
ADJUSTMENT/REGLAGE/ABGLEICH

(b) RF LEVEL, WAVE



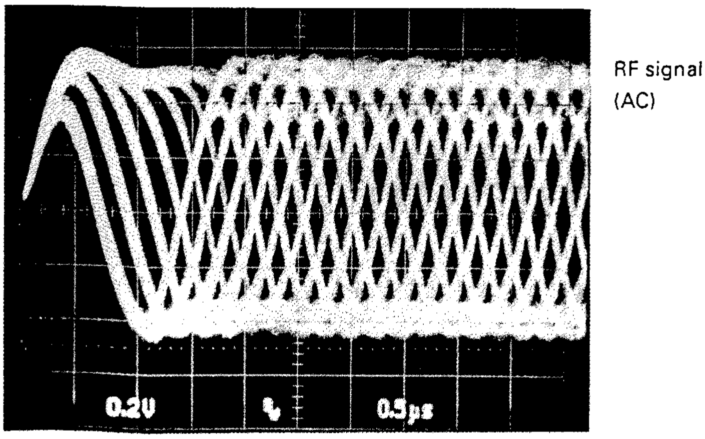
- RF signal and TE signal during test mode (RF).
- Signal RF et signal TE pendant le mode d'essai (RF).
- HF-Signal und TE-Signal während Test-Modus (HF).

(a) Tracking Error balance



- RF signal and T. Error signal during test mode (Focus ON) (TEST DISC TYPE: 4)
- Adjust T. Error so as to become symmetric with regard to 0 V. VR2 (Tracking error balance).
- Signal RF et signal d'erreur T. pendant le mode d'essai (Focus ON) (DISQUE D'ESSAI TYPE 4)
- Ajuster l'erreur T. pour qu'elle devienne symétrique par rapport à 0 V. VR2 (équilibre d'erreur de suivi).
- HF-Signal und T. Error-Signal während Test-Modus (Fokus ON) (TEST-DISC TYP: 4)
- T. Error so einstellen, daß er symmetrisch wird bezüglich 0 V. VR2 (Tracking-Fehler-Balance).

(b) Focus Error balance



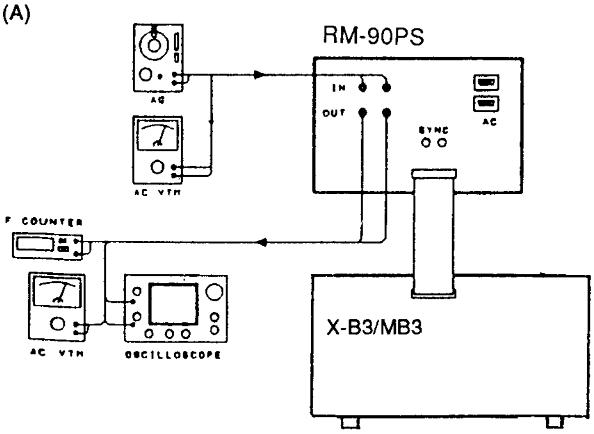
- RF signal during test mode.
- Make the adjustments for the various crosspoints at the center to become single points, and for the cross of the bright line to become clearly defined at both upper and lower sides.
- Signal RF pendant le mode d'essai (RF).
- Effectuer les ajustements pour que les divers points de croisement au centre deviennent des points uniques et pour que le croisement de la ligne de luminosité devienne clairementn défini aux deux côtés supérieur et inférieur.
- HF-Signal während Test-Modus.
- Die Einstellungen für die verschiedenen Kreuzpunkte in der Mitte so vornehmen, daß sie Einzelpunkte werden, und für die Kreuzung der hellen Linie so, daß sie sowohl an der POber- als auch an der Unterseite klar definiert ist.

ADJUSTMENT

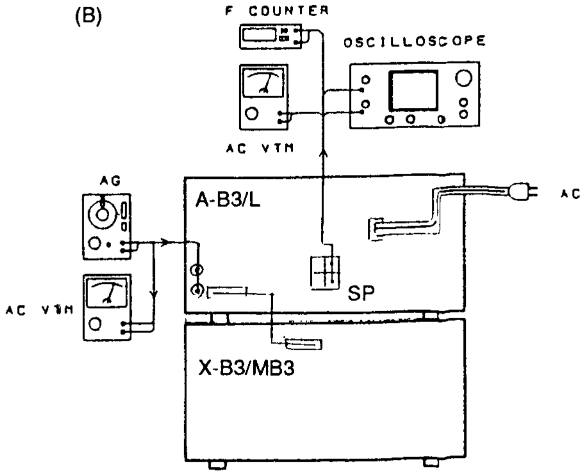
CASSETTE DECK

Order	ITEM	Input setting	output setting	Cassette Deck setting	Adjustment point	Adjustment method	FIG.
Unless otherwise specified, set the respective switches as follows: TAPE: NORMAL DOLBY: OFF Cassette mechanism unit (REC/PLAY head adjustment)							
(1)	Degaussing and cleaning	—	—	POWER: OFF Degaussing Cleaning PLAY	REC head Erasing head Capstan Pinch roller	Degauss the REC/PLAY head, Clean the REC/PLAY head, erasing head, capstan and pinoh roller with a cotton swab moistened with alcohol.	
(2)	Azimuth of the REC/PLAY head	SCC-1727 TCC-153 MTT-114 10 kHz, −10 dB	(A), (B)	PLAY	FWD RVS	Make the adjustments to obtain mazimum output, and then adjust the azimuth adjustment screw for the Lissajour's figure on the oscilloscope screen to become a 45° straight line.	
Adjustment of the prionted circuit board I1. NOTE: Make sure of carrying out the double speed adjustment in the first place.							
(1)	Tape speed (Double speed)	TCC-110 MTT-111 SCC-127 3 kHz	(A), (B)	*TEST MODE	VR7: (A) VR1: (B)	Adjust so that frequency is 6 kHz at tape center.	
(2)	Tape speed (Normal)				VR8: (A) VCR2: (B)	Adjust so that frequency is 6 kHz at tape center.	
* TP FWD KEY: NORMAL SPEED FF KEY: HI SPEED Adjustment of the printed circuit board III							
(1)	Playback level	MTT-150 400 Hz	(A), (B)	PLAY	B, DECK VR5 (L) VR6 (R)	Adjust the playback output to −1 dBs	
		MTT-256, SCC-1727 315 Hz				Adjust the playback output to −4 dBs	
		MTT-256U, TCC-160 315 Hz				Adjust the playback output to 0 dBs	
(2)	Bias current	Press the CLRS key for 3 seconds or more, and set the VR to the −15 dB position. Adjust AG for the DECK output to become 1 kHz −30 dBs.	(A), (B)	REC PLAY	B, DECK VR5 (L) VR6 (R)	Record 1kHz and 10 kHz alternately, and adjust the bias current adjustment potentiometer for the playback level to become the same.	
(3)	REC level	↑ 1 kHz, −30 dBs	↑	↑	VR (L) VR (R)	−30 dBs	

(A)



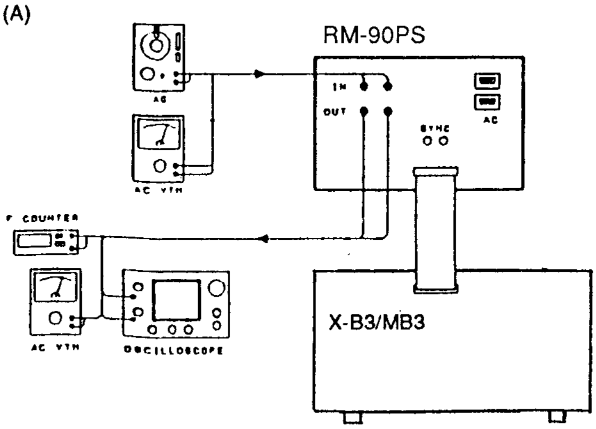
(B)



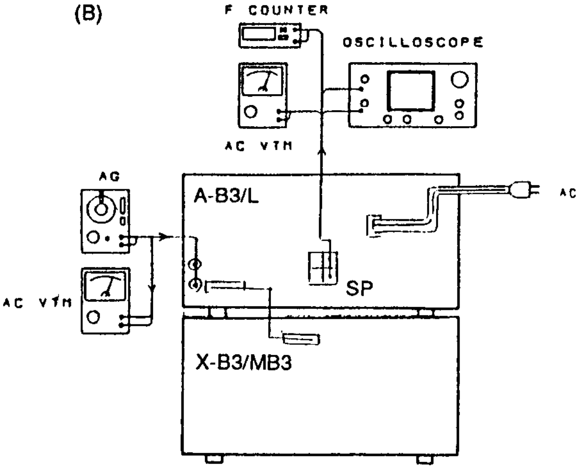
REGLAGE

Ordre	Sujet	Réglage d'entrée	Réglage de sortie	Réglage du Cassette	Point d'ajustement	Méthode d'ajustement	FIG.
A moins que cela ne soit contrairement spécifié, régler les commutateurs respectifs comme suit: TAPE: NORMAL DOLBY: OFF Unité de mécanisme de cassette: (Ajustement de tête REC/PLAY)							
(1)	Démagnétisationet nettoyage	–	–	POWER: OFF Démagnétisation nettoyage PLAY	Tête REC Tête d'effacement Cabestan Galet presseur	Démagnétiser la tête REC/PLAY, nettoyer la tête REC/PLAY, la tête d'effacement, le cabestan et le galet presseur avec un coton-tige humidifié dans de l'alcool.	
(2)	Azimut de la tête REC/PLAY	SCC-1727 TCC-153 MTT-114 10 kHz, −10 dB	(A), (B)	PLAY	FWD RVS	Effectuer les ajustements pour obtenir la sortie d'azimut, puis ajuster la vis de réglage d'azimut pour que la figure Lissajour sur l'écran de l'oscilloscope devienne une ligne droite à 45°.	
Ajustement de la carte de circuit imprimé. II NOTE: Toujours commencer par effectuer l'ajustement de vitesse double.							
(1)	Vitesse de bande (Vitesse double)	TCC-110 MTT-111 SCC-127 3 kHz	(A), (B)	*MODE D'ESSAI	VR7: (A) VR1: (B)	Ajuster de sorte que la fréquence soit de 6 kHz au centre de la bande.	
(2)	Vitesse de bande (Normale)				VR8: (A) VCR2: (B)	Ajuster de sorte que la fréquence soit de 6 kHz au centre de la bande.	
* TP FWD-TASTE: NORMALE GESCHWINDIGKEIT FF-TASTE: SCHNELL Ajustement de la carte de circuit imprimé. III							
(1)	Niveau de lecture	MTT-150 400 Hz	(A), (B)	PLAY	B, DECK VR5 (L) VR6 (R)	Ajuster la sortie de lelcture à −1 dBs	
		MTT-256, SCC-1727 315 Hz				Ajuster la sortie de lecture à −4 dBs	
		MTT-256U, TCC-160 315 Hz				Ajuster la sortie de lecture à 0 dBs	
(2)	Courant de polarisation	Appuyer sur la touche CLRS pendant 3 secondes ou plus et régler le VR sur la position −15 dB. Ajuster AG pour que la sortie DECK atteigne 1 kHz −30 dBs.	(A), (B)	REC PLAY	B, DECK VR5 (L) VR6 (R)	Enregisterer 1 kHz et 10 kHz, alternativement, et ajuster le potentiomètre de réglage de courant de polarisation pour que le niveau de lecture devienne la même chose.	
(3)	Niveau REC	↑ 1 kHz, −30 dBs	↑	↑	VR (L) VR (R)	−30 dBs	

(A)



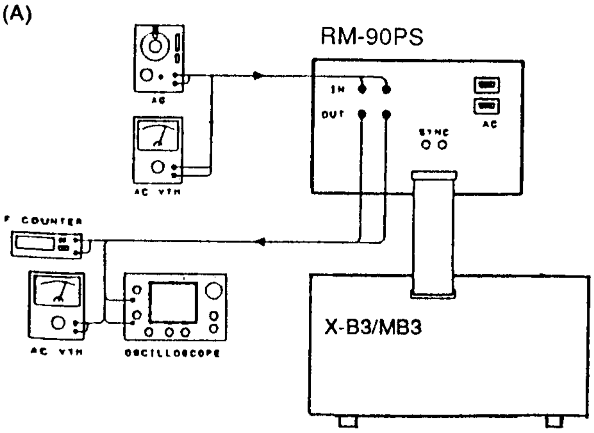
(B)



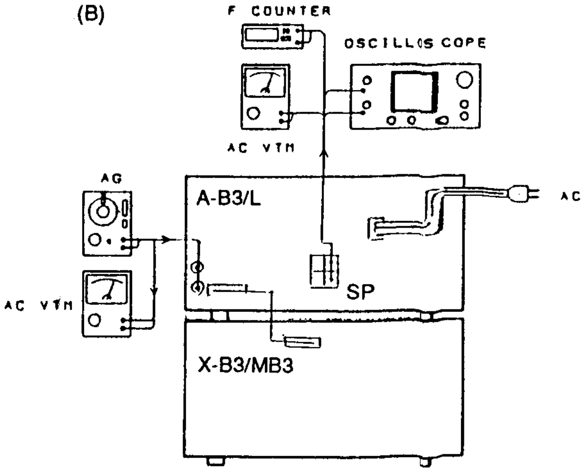
ABGLEICH

Reihenfolge	GEGENSTAND	Eingangseinstellung	Ausgangseinstellung	Cassettendeck-Einstellung	Einstellpunkt	Einstellverfahren	ABB
Sofern nicht andersweitig angegeben, die entsprechenden Schalter wie folgt einstellen: TAPE: NORMAL DOLBY: OFF Cassettenlaufwerk (REC/PLAY-Kopf-Einstellung)							
(1)	Entmagnetisierung und Reinigung	—	—	POWER: OFF Entmagnetisierung Reinigung PLAY	REC-Kopf Löschkopf Tonwelle Andruckrolle	REC/PLAY-Kopf entmagnetisieren; REC/PLAY-Kopf, Löschkopf, Tonwelle und Andruckrolle mit einem mit Alkohol angefeuchteten Wattestäbchen reinigen.	
(2)	Azimuth des REC/PLAY-Kopfes	SCC-1727 TCC-153 MTT-114 10 kHz, −10 dB	(A), (B)	PLAY	FWD RVS	Zuerst auf maximalen Ausgang einstellen, dann die Azimuth-Einstellschraube so justieren, daß die Lissajousfigur am Oszilloskop eine Gerade mit 45° wird.	
Einstellund der Leiterplatte II. HINWEIS: Die Doppelgeschwindigkeitseinstellung unbedingt zuerst vornehmen.							
(1)	Bandgeschwindigkeit (Doppelgeschwindigkeit)	TCC-110 MTT-111 SCC-127 3 kHz	(A), (B)	*TEST MODE	VR7: (A) VR1: (B)	So einstelen, daß die Frequenz in der Bandmitte 6 kHz beträgt.	
(2)	Bandgeschwindigkeit (Normal)				VR8: (A) VCR2: (B)	So einstellen, daß die Frequenz in der Bandmitte 6 kHz beträgt.	
* TP FWD-TASTE: NORMALE GESCHWINDIGKEIT FF-TASTE: SCHNELL Einstellung der Leiterplatte III							
(1)	Wiedergabepegel	MTT-150 400 Hz	(A), (B)	PLAY	B, DECK VR5 (L) VR6 (R)	Den Wiedergabeausgang auf −1 dBs einstellen	
		MTT-256, SCC-1727 315 Hz				Den Wiedergabeausgang auf −1 dBs einstellen	
		MTT-256U, TCC-160 315 Hz				Den Wiedergabeausgang auf 0 dBs einstellen	
(2)	Vormagnetisierungsstrom	Die CLRS-Taste 3 Sekunden oder länger drücken, und VR auf −15 dB einstellen. AG so einstellen, daß der DECK-AUsgang 1 kHz −30 dBs wird.	(A), (B)	REC PLAY	B, DECK VR5 (L) VR6 (R)	Abwechselnd 1 kHz und 10 kHz aufzeichnen, und das Vormagnetiserungsstrom-Einstellpotentiometer so einstellen, daß derselbe Wiedergabepegel erhalten wird.	
(3)	REC-Pegel	↑ 1 kHz, −30 dBs	↑	↑	VR (L) VR (R)	−30 dBs	

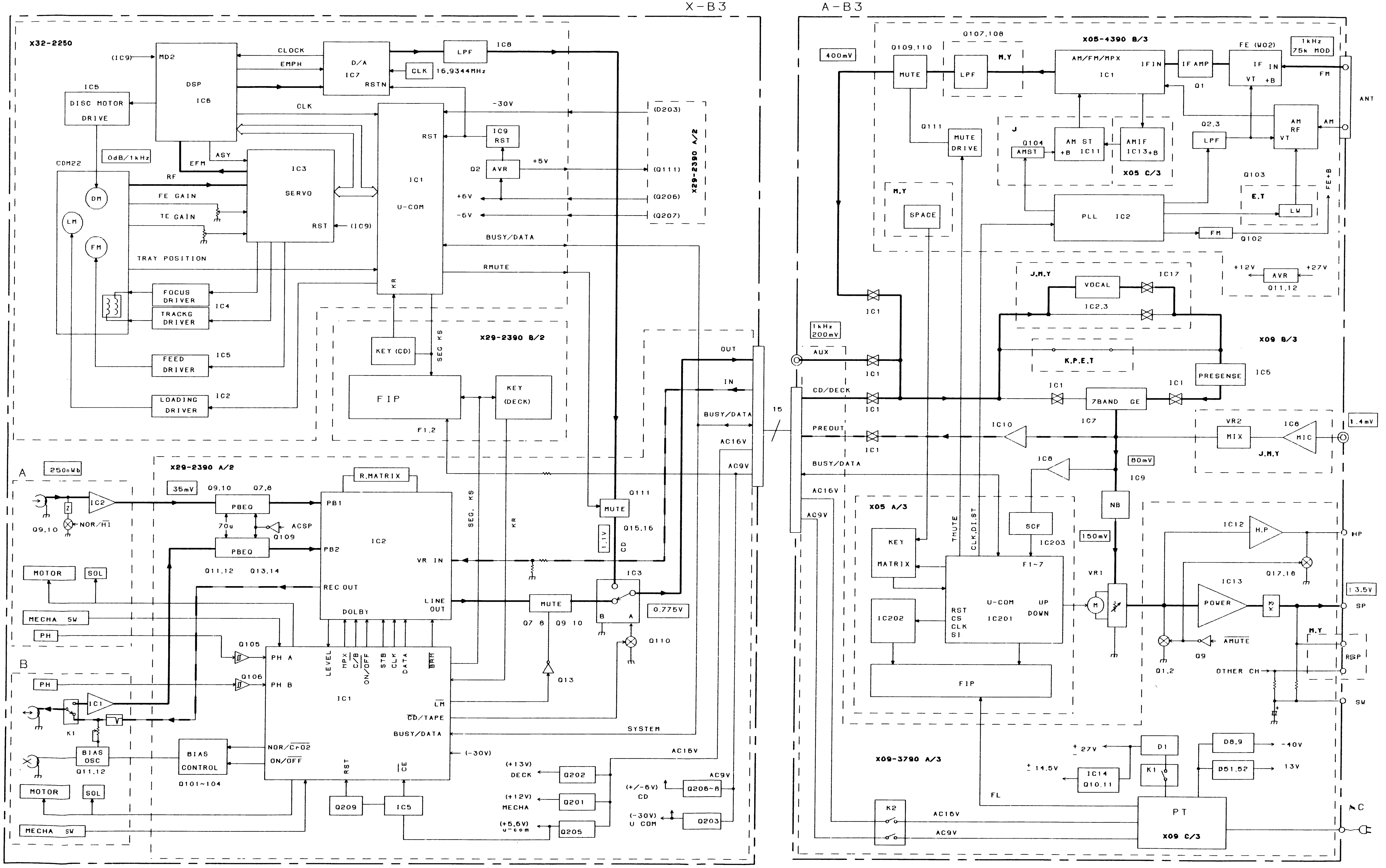
(A)



(B)



BLOCK DIAGRAM


X-B3
A-B3
X32-2250
(IC9)
MD2
DSP
IC6
CLOCK
EMPH
D/A
IC7
RSTN
CLK
16.9344MHz
LPF
IC8
IC5
DISC MOTOR DRIVE
CLK
-30V
(D203)
IC9
RST
RST
0dB/1kHz
ASY
EFM
CDM22
RF
IC3
SERVO
Q2
AVR
+5V
(Q111)
IC1
U-COM
+6V
(Q206)
-6V
(Q207)
X29-2390 A/2
DM
FE GAIN
TE GAIN
LM
FM
RST
(IC9)
BUSY/DATA
TRAY POSITION
RMUTE
FOCUS DRIVER
TRACKG DRIVER
IC4
KR
FEED DRIVER
IC5
KEY (CD)
SEG KS
X29-2390 B/2
FIP
KEY (DECK)
LOADING DRIVER
IC2
F1,2
OUT
IN
BUSY/DATA
AC16V
AC9V
15
A
250nWb
X29-2390 A/2
35mV
Q9,10
Q7,8
R.MATRIX
PB1
IC2
PBEQ
70u
ACSP
Q109
Q9,10
NOR/HI
PBEQ
PB2
Q11,12
Q13,14
VR IN
MOTOR
SOL
REC OUT
DOLBY
LINE OUT
MECHA SW
PH
Q105
PH A
B
Q106
PH B
PH
IC1
K1
V
BIAS OSC
Q11,12
BIAS CONTROL
Q101~104
MOTOR
SOL
MECHA SW
LEVEL
MPX
C/B
ON/OFF
STB
CLK
DATA
BRH
LM
CD/TAPE
BUSY/DATA
SYSTEM
NOR/CrO2
ON/OFF
(-30V)
RST
CE
Q209
IC5
SEG. KS
KR
Q111
MUTE
Q15,16
1.1V
CD
IC3
MUTE
0.775V
Q7 8
Q9 10
Q110
Q13
AC16V
AC9V
(+13V) DECK
Q202
(+12V) MECHA
Q201
(+5.6V) u-com
Q205
(+/-6V) CD
Q206~8
(-30V) U COM
Q203
400mV
Q109,110
MUTE
Q107,108
LPF
M.Y
X05-4390 B/3
AM/FM/MPX
IC1
IFIN
IF AMP
Q1
FE (W02)
IF IN
VT +B
1kHz 75k MOD
FM
ANT
Q111
MUTE DRIVE
J
Q104
AMST
AM ST +B IC11
AMIF IC13+B
X05 C/3
Q2,3
LPF
AM RF VT
AM
Q103
FE+B
M.Y
SPACE
E.T
LW
PLL IC2
FM
Q102
J.M.Y
VOCAL
IC17
IC2,3
+12V
AVR
+27V
Q11,12
IC1
1kHz 200mV
AUX
IC1
K.P.E.T
X09 B/3
PRESENSE
IC5
CD/DECK
IC1
IC1
IC1
7BAND GE
IC1
PREOUT
IC10
IC7
VR2
MIX
IC6
MIC
1.4mV
J.M.Y
IC1
BUSY/DATA
IC8
80mV
IC9
AC16V
AC9V
X05 A/3
TMUTE
CLK,DI,ST
NB
KEY MATRIX
SCF
IC203
150mV
F1~7
VR1
IC12
H.P
HP
Q17,18
3.5V
IC13
U-COM IC201
RST
CS
CLK
SI
UP DOWN
IC202
POWER
SP
AMUTE
M.Y
RSP
Q9
Q1,2
OTHER CH
FIP
SW
X09-3790 A/3
+27V
D1
D8,9
-40V
+14.5V
IC14 Q10,11
K1
D51,52
13V
FL
K2
AC16V
AC9V
PT
X09 C/3
AC

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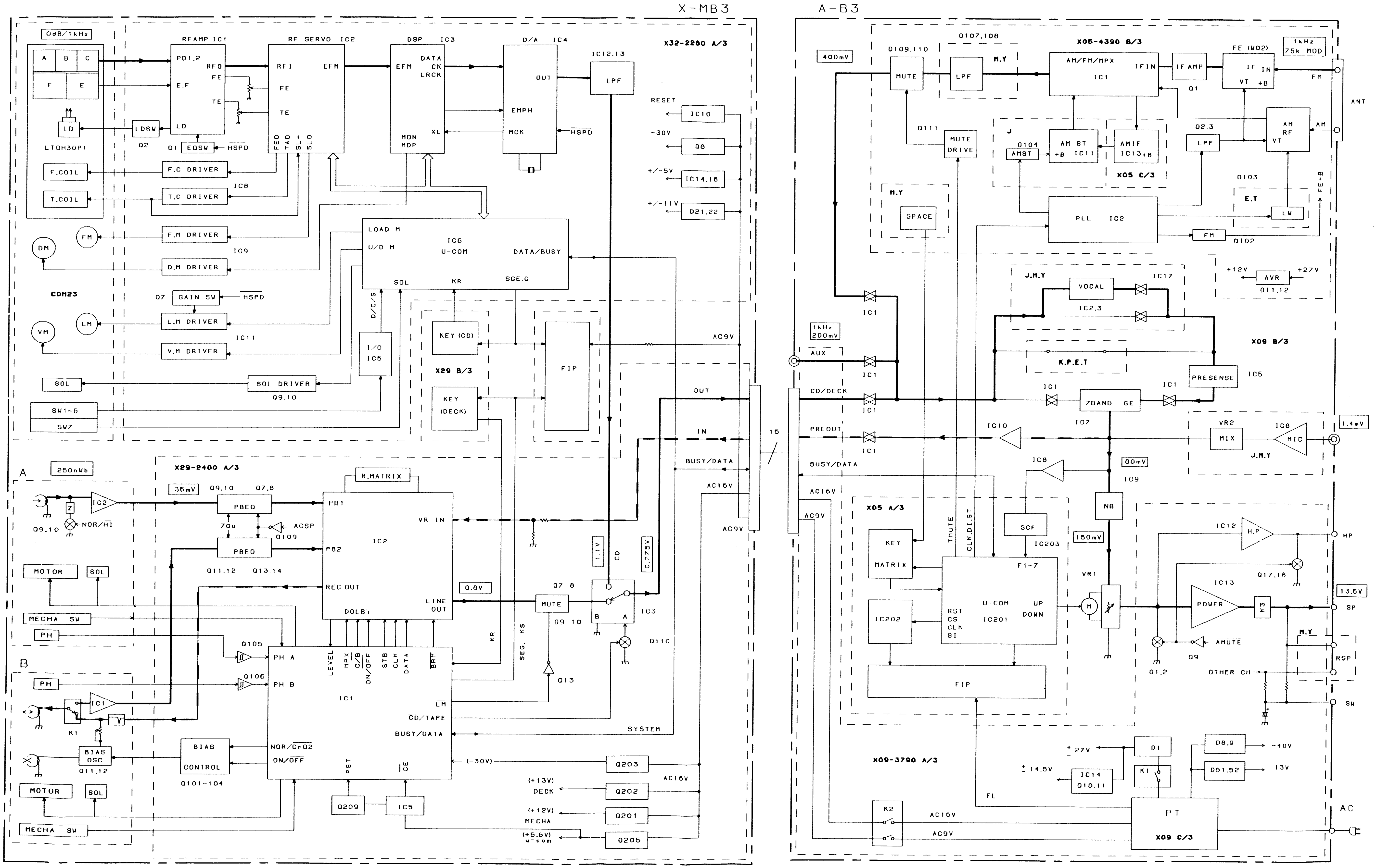
BLOCK DIAGRAM


X-MB3
A-B3
0dB/1kHz
A B C
F E
LD
LT0H30P1
LDSW
Q2
RFAMP IC1
PD1,2
RFO
FE
TE
E,F
LD
Q1 EQSW
HSPD
RF SERVO IC2
RFI
EFM
FE
TE
FED TAO SL+ SLO
DSP IC3
EFM
DATA
CK
LRCK
XL
MON
MDP
D/A IC4
OUT
EMPH
MCK
HSPD
IC12,13
LPF
X32-2280 A/3
RESET
IC10
-30V
Q8
+/-5V
IC14,15
+/-11V
D21,22
F.COIL
F.C DRIVER
T.COIL
T.C DRIVER
IC8
FM
F.M DRIVER
DM
D.M DRIVER
IC9
LOAD M
U/D M
IC6
U-COM
DATA/BUSY
SOL
KR
SGE,G
CDM23
Q7
GAIN SW
HSPD
LM
L.M DRIVER
IC11
VM
V.M DRIVER
D/C/S
I/O
IC5
KEY (CD)
X29 B/3
KEY (DECK)
FIP
AC9V
SOL
SOL DRIVER
Q9,10
SW1~6
SW7
OUT
IN
BUSY/DATA
AC16V
AC9V
15
A
250nWb
IC2
Z
NOR/HI
Q9,10
MOTOR
SOL
MECHA SW
PH
B
PH
IC1
K1
BIAS OSC
Q11,12
MOTOR
SOL
MECHA SW
X29-2400 A/3
35mV
Q9,10
Q7,8
PBEQ
70u
ACSP
Q109
PBEQ
Q11,12
Q13,14
R.MATRIX
PB1
PB2
VR IN
IC2
REC OUT
LINE OUT
DOLBI
0.8V
Q105
Q106
PH A
PH B
IC1
LEVEL
MPX
C/B
ON/OFF
STB
CLK
DATA
BRH
LM
CD/TAPE
BUSY/DATA
BIAS CONTROL
Q101~104
NOR/CrO2
ON/OFF
PST
CE
Q209
IC5
KR
SEG, KS
1.1V
CD
0.775V
Q7 8
MUTE
Q9 10
B
A
IC3
Q110
Q13
SYSTEM
(-30V)
Q203
(+13V) DECK
Q202
AC16V
(+12V) MECHA
Q201
(+5.6V) u-com
Q205
400mV
Q109,110
MUTE
Q107,108
LPF
M.Y
X05-4390 B/3
AM/FM/MPX
IC1
IFIN
IF AMP
Q1
FE (W02)
IF
IN
VT +B
1kHz 75k MOD
FM
ANT
AM
Q111
MUTE DRIVE
J
Q104
AMST
AM ST
+B IC11
AMIF
IC13+B
X05 C/3
Q2,3
LPF
AM RF
VT
Q103
FE+B
M.Y
SPACE
E.T
LW
PLL IC2
FM
Q102
J.M.Y
VOCAL
IC17
IC2,3
+12V
AVR
+27V
Q11,12
IC1
X09 B/3
1kHz 200mV
AUX
IC1
K.P.E.T
PRESENSE
IC5
CD/DECK
IC1
IC1
7BAND GE
IC1
PREOUT
IC10
IC7
VR2
MIX
IC6
MIC
1.4mV
J.M.Y
BUSY/DATA
IC8
80mV
IC9
AC16V
AC9V
X05 A/3
KEY MATRIX
MUTE
CLK,DI,ST
SCF
IC203
NB
150mV
F1~7
VR1
IC202
RST
CS
CLK
SI
U-COM
IC201
UP
DOWN
M
FIP
IC12
H.P
HP
Q17,16
IC13
POWER
K3
13.5V
SP
Q1,2
Q9
AMUTE
M.Y
RSP
OTHER CH
SW
X09-3790 A/3
+27V
D1
D8,9
-40V
+14.5V
IC14
Q10,11
K1
D51,52
13V
FL
K2
AC16V
AC9V
PT
X09 C/3
AC

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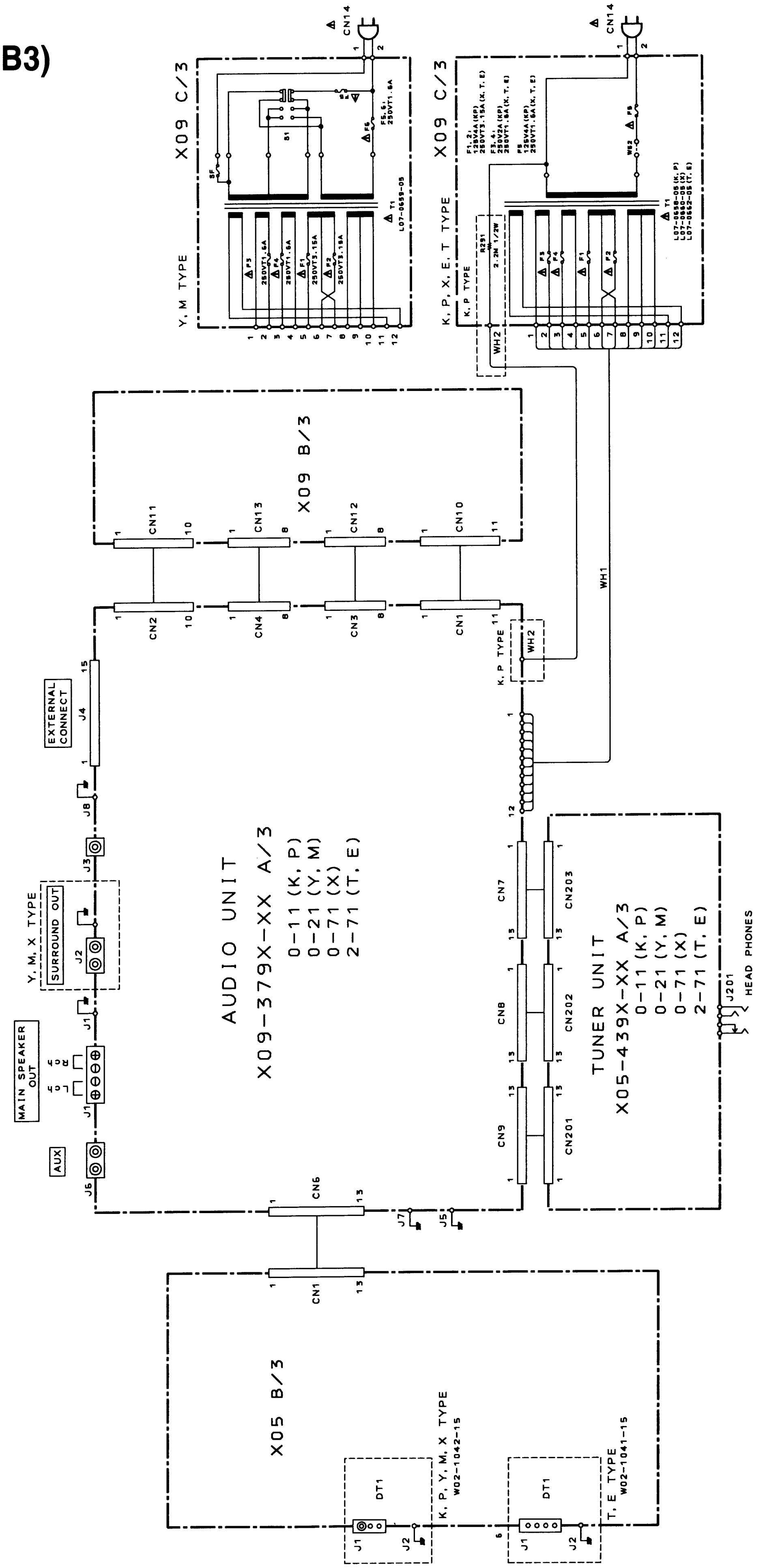
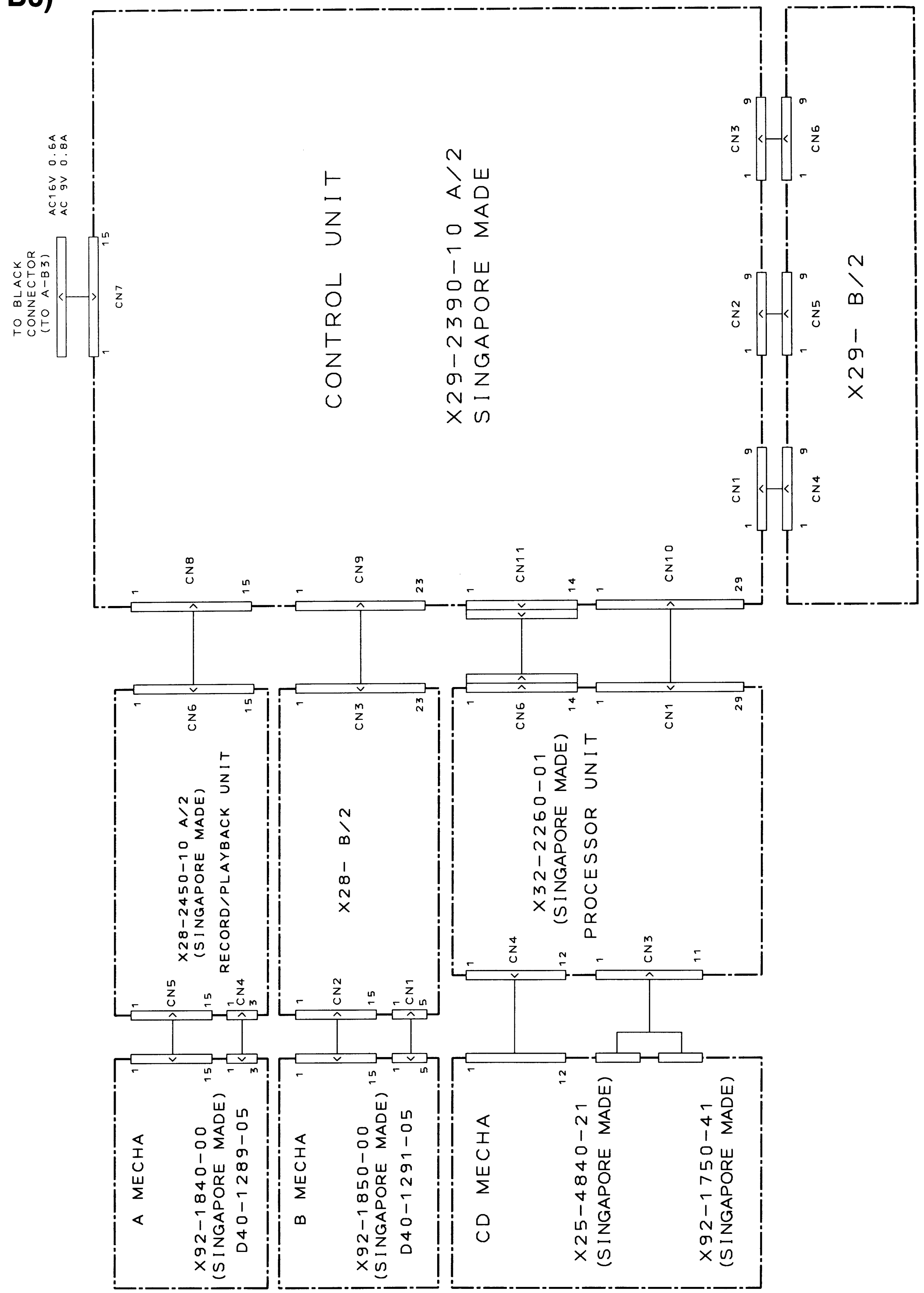
WIRING DIAGRAM

(A-B3)



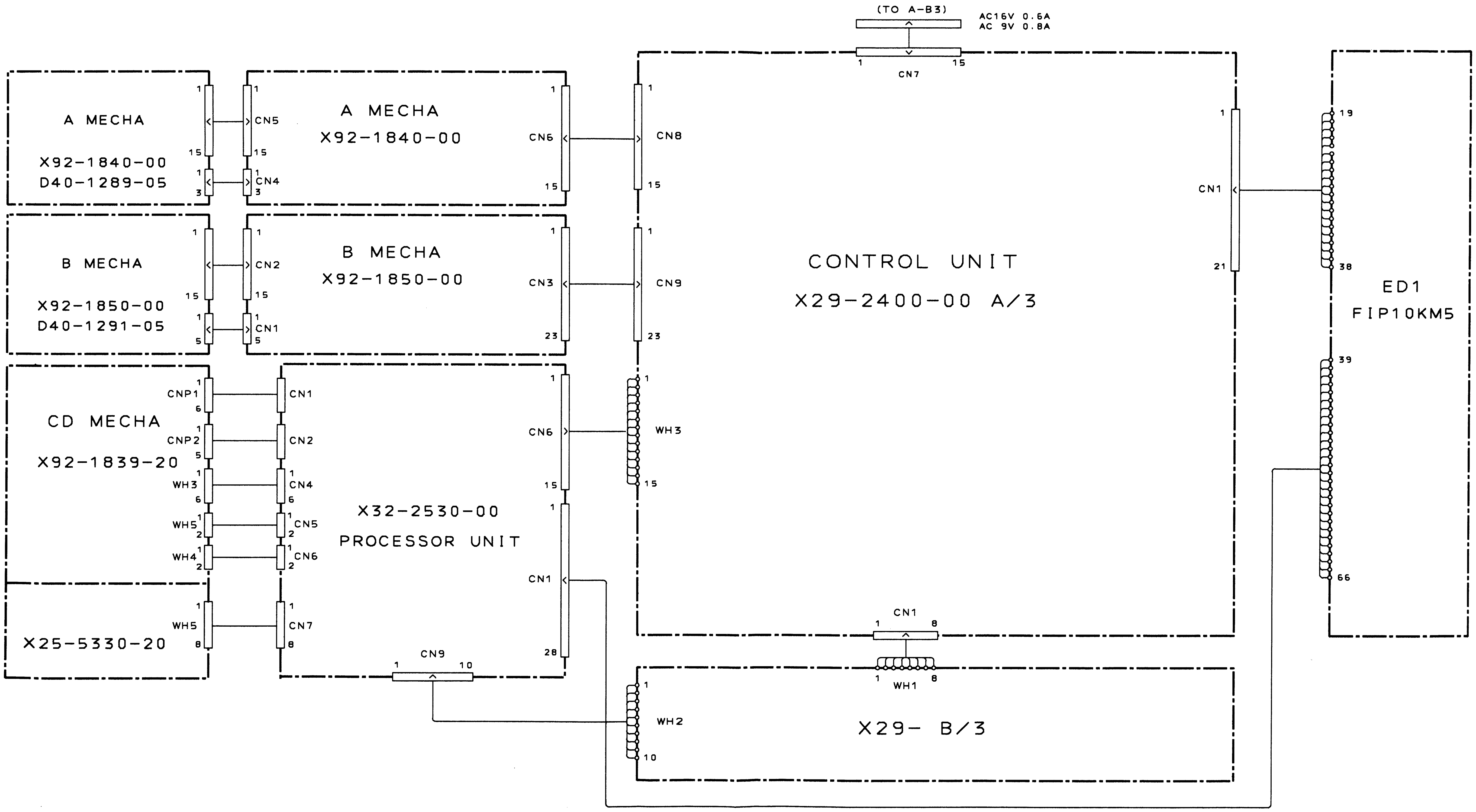
CN14
X09 C/3
Y, M TYPE
K, P, X, E, T TYPE
K, P TYPE
WH2
WH1
X09 B/3
CN11
CN13
CN12
CN10
CN2
CN4
CN3
CN1
K, P TYPE
EXTERNAL CONNECT
J4
J8
J3
Y, M, X TYPE
SURROUND OUT
J2
MAIN SPEAKER OUT
J1
AUX
J6
AUDIO UNIT
X09-379X-XX A/3
0-11 (K, P)
0-21 (Y, M)
0-71 (X)
2-71 (T, E)
CN7
CN8
CN9
CN203
CN202
CN201
TUNER UNIT
X05-439X-XX A/3
0-11 (K, P)
0-21 (Y, M)
0-71 (X)
2-71 (T, E)
J201
HEAD PHONES
CN6
J7
J5
CN1
X05 B/3
DT1
K, P, Y, M, X TYPE
W02-1042-15
T, E TYPE
W02-1041-15
J1
J2

(X-B3)



TO BLACK CONNECTOR (TO A-B3)
AC16V 0.6A
AC 9V 0.8A
CN7
CONTROL UNIT
X29-2390-10 A/2
SINGAPORE MADE
CN3
CN2
CN1
CN6
CN5
CN4
X29- B/2
CN8
CN9
CN11
CN10
CN6
CN3
CN6
CN1
X28-2450-10 A/2
(SINGAPORE MADE)
RECORD/PLAYBACK UNIT
X28- B/2
X32-2260-01
(SINGAPORE MADE)
PROCESSOR UNIT
CN5
CN4
CN2
CN1
CN4
CN3
A MECHA
X92-1840-00
(SINGAPORE MADE)
D40-1289-05
B MECHA
X92-1850-00
(SINGAPORE MADE)
D40-1291-05
CD MECHA
X25-4840-21
(SINGAPORE MADE)
X92-1750-41
(SINGAPORE MADE)

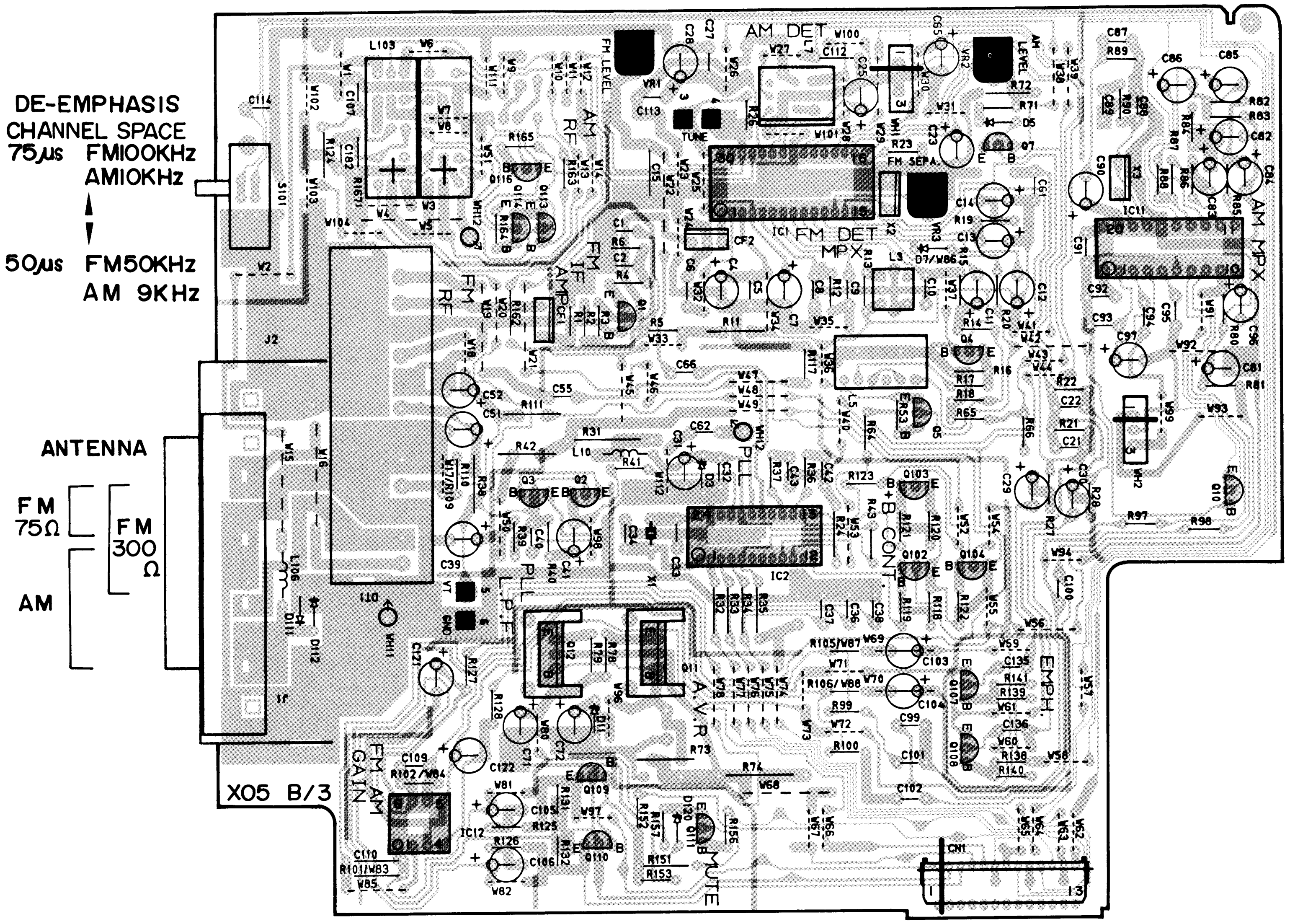
WIRING DIAGRAM (X-MB3)

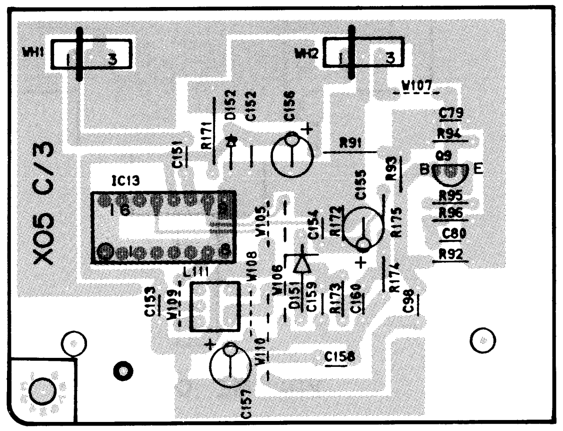

(TO A-B3)
AC16V 0.6A
AC 9V 0.8A
CN7
A MECHA
X92-1840-00
D40-1289-05
CN5
CN4
A MECHA
X92-1840-00
CN6
CN8
B MECHA
X92-1850-00
D40-1291-05
CN2
CN1
B MECHA
X92-1850-00
CN3
CN9
CD MECHA
X92-1839-20
CNP1
CNP2
WH3
WH5
WH4
CN1
CN2
CN4
CN5
CN6
X32-2530-00
PROCESSOR UNIT
CN6
CN1
WH3
X25-5330-20
WH5
CN7
CN9
CONTROL UNIT
X29-2400-00 A/3
CN1
CN1
WH1
X29- B/3
WH2
ED1
FIP10KM5

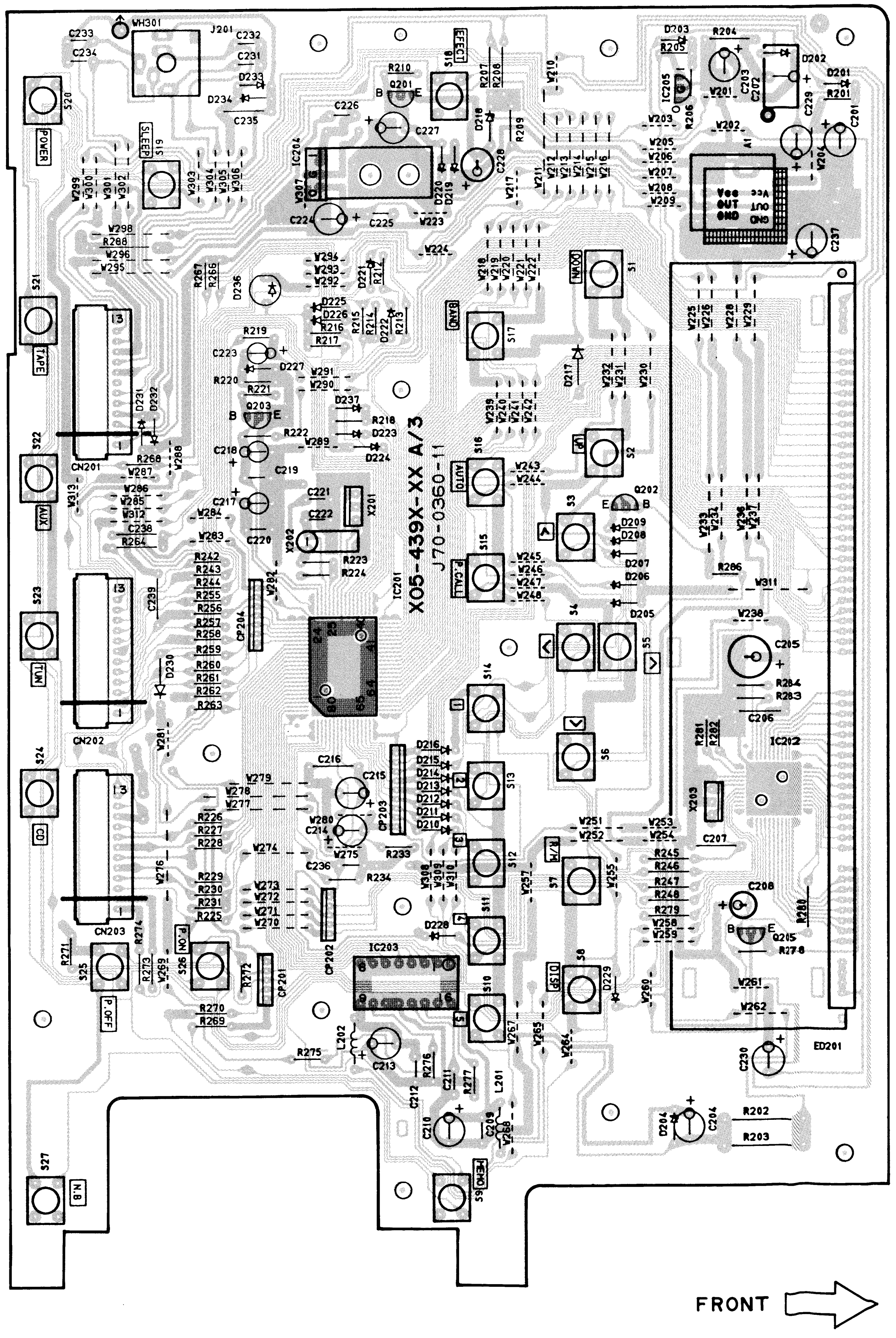
A B C D E F G H I J

PC BOARD (Component side view) TUNER UNIT (X05-4390-11:K,P ; 0-21:Y,M ; 0-71:X ; 2-71:T,E)

A-B3


DE-EMPHASIS
CHANNEL SPACE
75µs FM100KHz
AM10KHz
50µs FM50KHz
AM 9KHz
ANTENNA
FM
75Ω
FM
300
Ω
AM
AM DET
FM DET
MPX
AM MPX
FM SEPA.
FM LEVEL
AM LEVEL
AM RF
FM RF
FM IF AMP
PLL
A.V.R
B CON.
EMPH.
MUTE
FM AM GAIN
TUNE
X05 B/3
IC1
IC2
IC11
IC12
J2
CN1

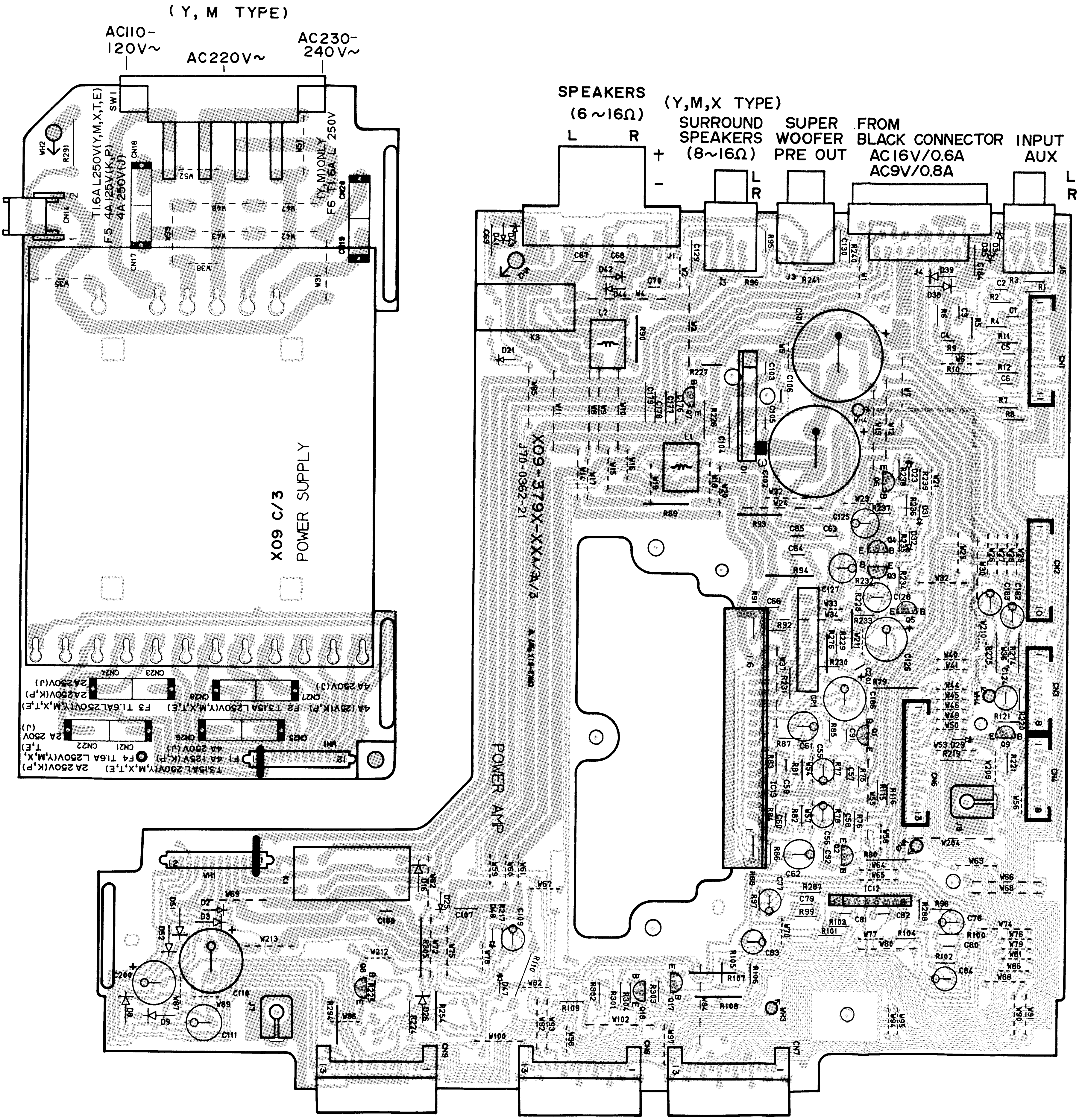

X05 C/3
IC13
WH1
WH2
L111


X05-439X-XX A/3
J70-0360-11
POWER
SLEEP
EFFECT
TAPE
AUX
TUN
CD
P.OFF
N.B
BAND
AUTO
P.CALL
MEMO
CHECK
M/M
DISP
UP
CN201
CN202
CN203
IC201
IC202
IC203
IC204
IC205
IC212
ED201
FRONT

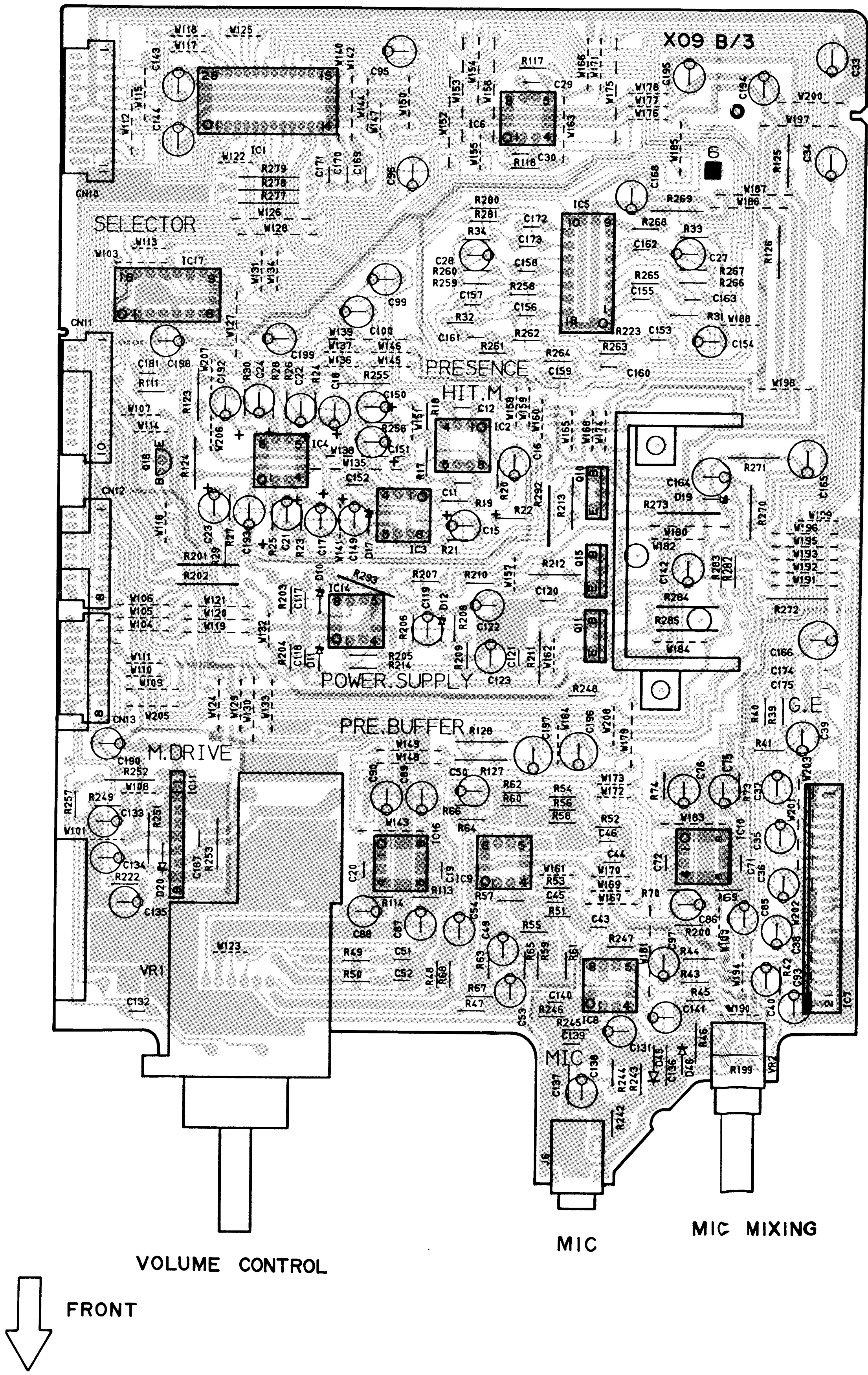
Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (Component side view) AUDIO UNIT (X09-3790-11;K,P ; 0-21:Y,M ; 0-71;X ;2-71;T,E)

A-B3



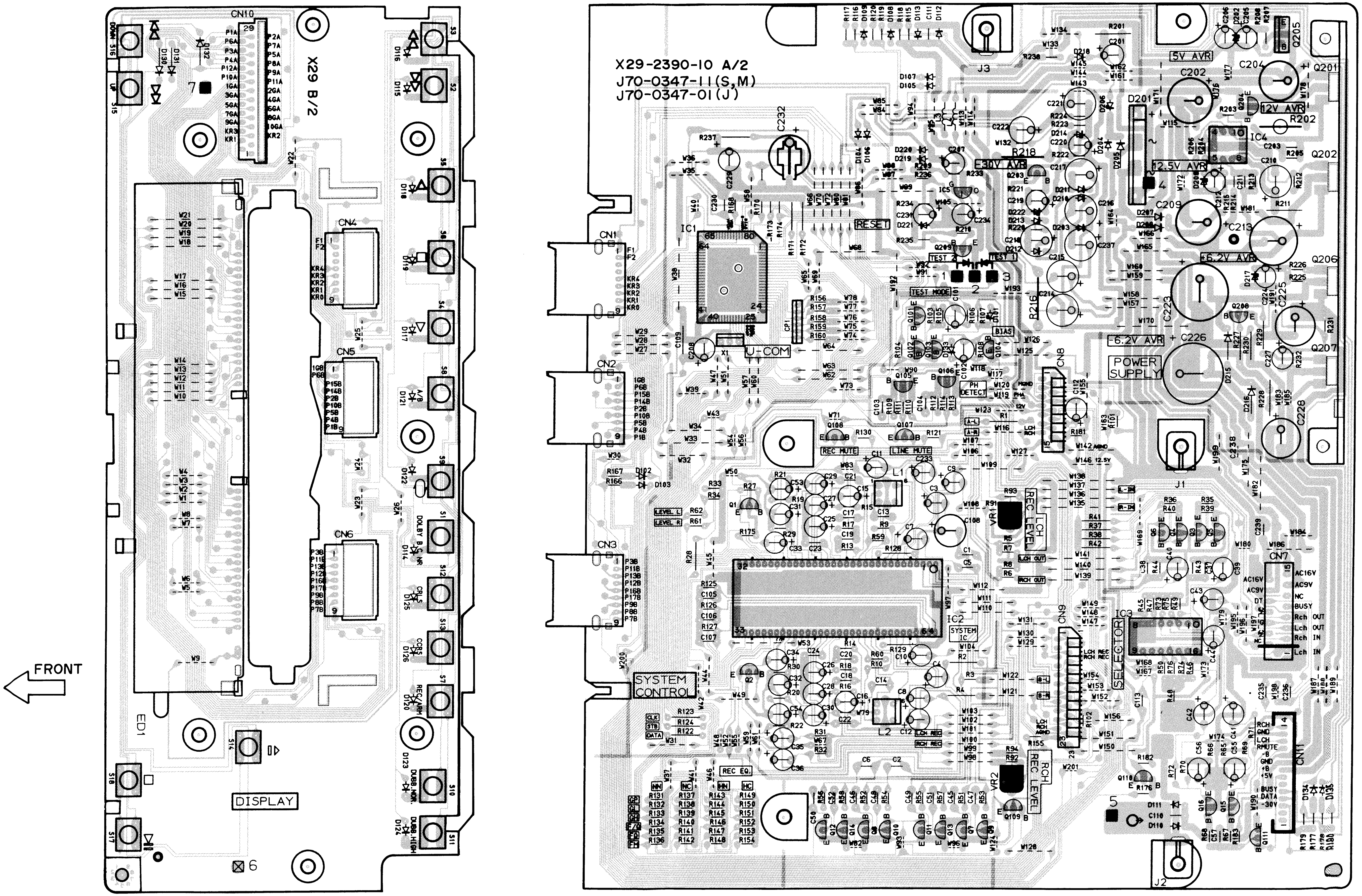
(Y, M TYPE)
AC110-120V~
AC220V~
AC230-240V~
SW1
T1.6A L250V(Y,M,X,T,E)
F5 4A 125V(K,P)
4A 250V(J)
(Y,M)ONLY
F6 T1.6A L 250V
X09 C/3
POWER SUPPLY
4A 125V(K,P) F2 T3.15A L250V(Y,M,X,T,E)
4A 250V(J)
2A250V(K,P)
F3 T1.6AL250V(Y,M,X,T,E)
2A250V(J)
F1 4A 125V (K,P)
4A 250V (J)
F4 T1.6A L250V(Y,M,X,T,E)
2A 250V(K,P)
2A 250V (J)
T3.15A L 250V(Y,M,X,T,E)
SPEAKERS
(6~16Ω)
L R
+
-
(Y,M,X TYPE)
SURROUND SPEAKERS
(8~16Ω)
L R
SUPER WOOFER PRE OUT
FROM BLACK CONNECTOR
AC16V/0.6A
AC9V/0.8A
INPUT AUX
L R
X09-379X-XX/A/3
J70-0362-21
POWER AMP



X09 B/3
SELECTOR
PRESENCE
HIT.M
POWER.SUPPLY
PRE.BUFFER
M.DRIVE
G.E
VR1
MIC
VOLUME CONTROL
MIC
MIC MIXING
FRONT

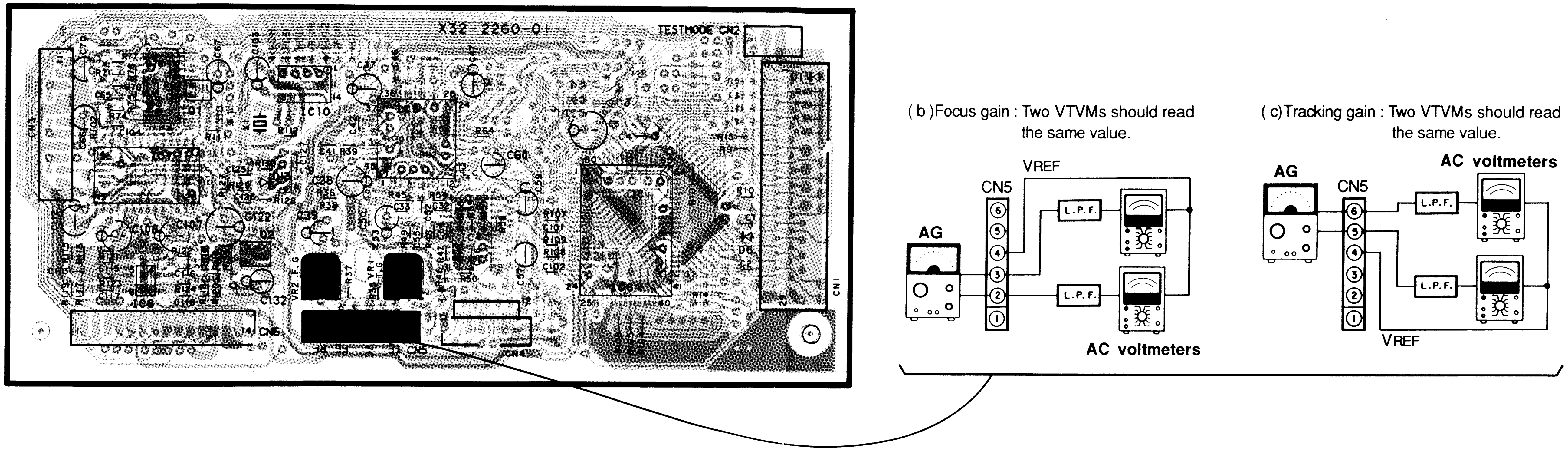
Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (Component side view) CONTROL UNIT (X29-2390-10)


CN10
X29 B/2
CN4
CN5
CN6
ED1
FRONT
DISPLAY
S1
S2
S3
S4
S5
S6
S7
S8
S9
S10
S11
S12
S13
S14
S15
S16
S17
S18
DOWN
UP
DOLBY B/C NR
REC/ARM
DUBB.NOR.
DUBB.HIGH
X29-2390-10 A/2
J70-0347-11(S,M)
J70-0347-01(J)
CN1
CN2
CN3
IC1
U-COM
RESET
TEST MODE
TEST 1
TEST 2
5V AVR
12V AVR
-30V AVR
12.5V AVR
+6.2V AVR
-6.2V AVR
POWER SUPPLY
IC4
IC5
J1
J2
J3
CN7
CN8
CN9
CN11
BIAS
PH DETECT
REC MUTE
LINE MUTE
LEVEL L
LEVEL R
IC2
SYSTEM IC
SYSTEM CONTROL
LCH REC LEVEL
RCH REC LEVEL
VR1
VR2
SELECTOR
IC3
REC EQ.
LCH OUT
RCH OUT
LCH REC
RCH REC
CLK
STB
DATA
AC16V
AC9V
NC
BUSY
Rch OUT
Lch OUT
Rch IN
Lch IN
RCH
GND
LCH
RMUTE
-B
+B
+5V
BUSY
DATA
-30V
L1
L2
X1
CP1

Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (Component side view) SIGNAL PROCESSOR UNIT (X32-2260-01)


X32-2260-01
TESTMODE CN2
CN1
CN3
CN4
CN5
CN6
IC6
IC8
IC10
VR1
VR2
AG
CN5
VREF
L.P.F.
L.P.F.
⑥
⑤
④
③
②
①

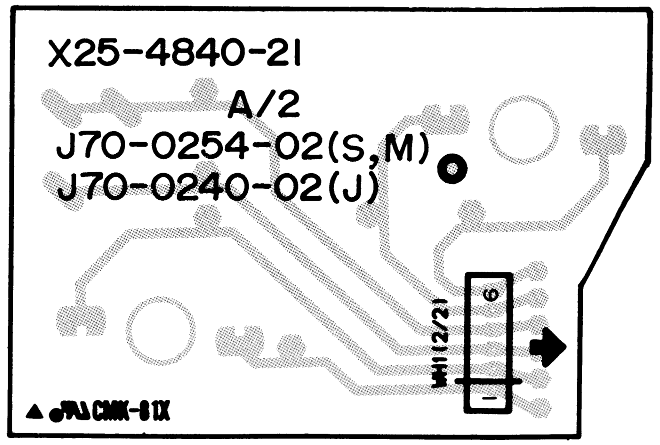
(b) Focus gain : Two VTVMs should read the same value.

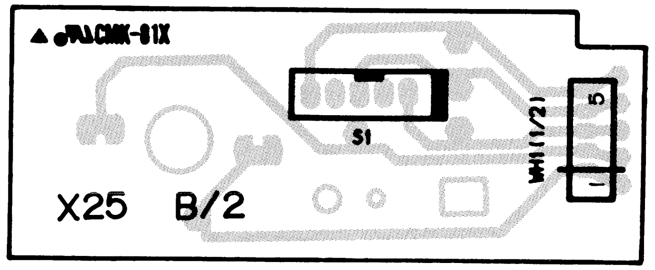
(c) Tracking gain : Two VTVMs should read the same value.

AC voltmeters

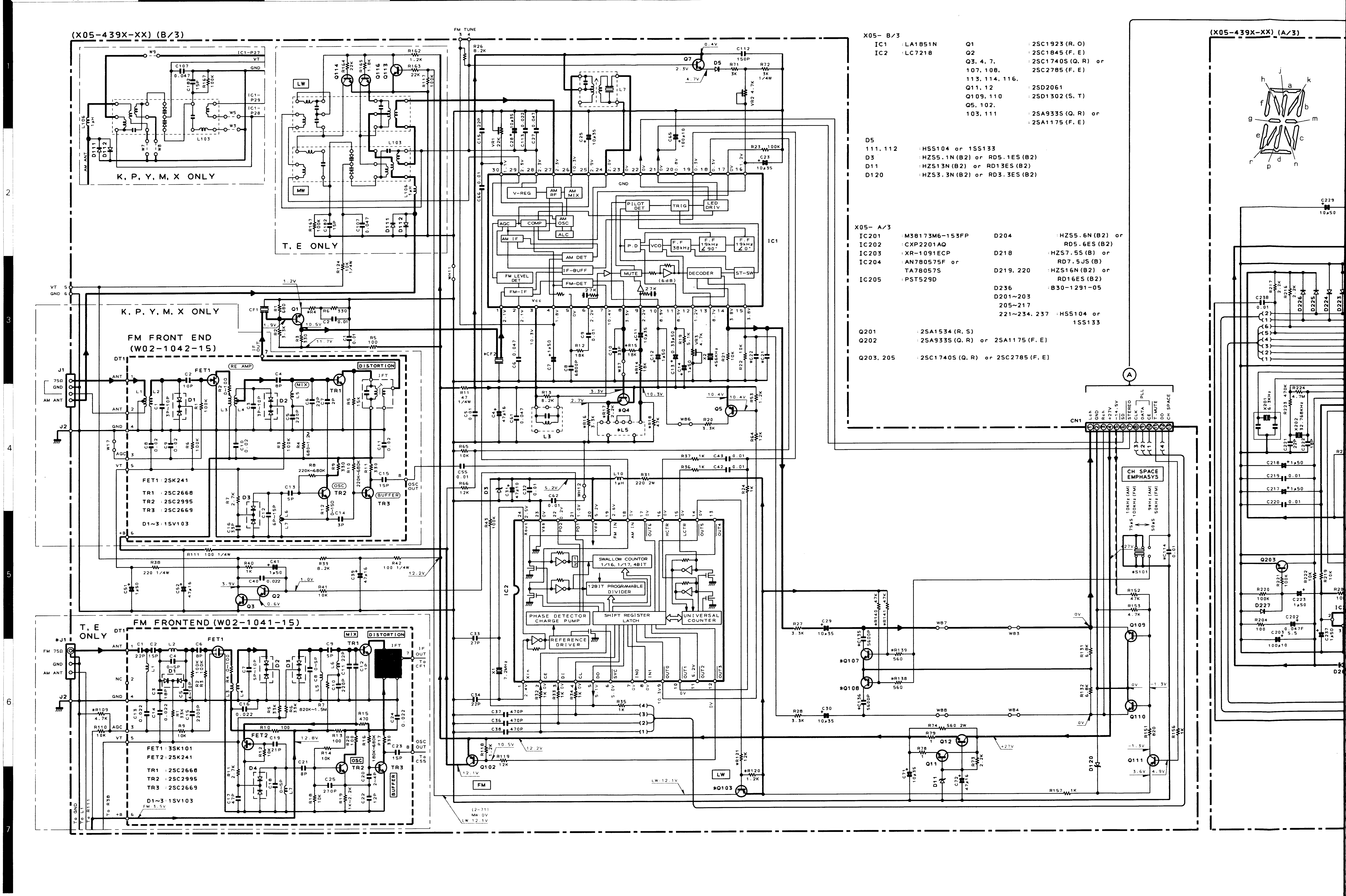
AC voltmeters

ELECTRIC UNIT (X25-4840-21)


X25-4840-21
A/2
J70-0254-02(S,M)
J70-0240-02(J)
W1(2/21)
6
1
CMK-81X


CMK-81X
S1
W1(1/21)
5
1
X25 B/2

Refer to the schematic diagram for the values of resistors and capacitors.


(X05-439X-XX) (B/3)
(X05-439X-XX) (A/3)
K, P, Y, M, X ONLY
T, E ONLY
K, P, Y, M, X ONLY
FM FRONT END (W02-1042-15)
T, E ONLY
FM FRONTEND (W02-1041-15)
FET1 : 2SK241
TR1 : 2SC2668
TR2 : 2SC2995
TR3 : 2SC2669
D1~3 : 1SV103
FET1 : 3SK101
FET2 : 2SK241
TR1 : 2SC2668
TR2 : 2SC2995
TR3 : 2SC2669
D1~3 : 1SV103
RF AMP
MIX
DISTORTION
OSC
BUFFER
IFT
IF OUT
OSC OUT
LW
MW
FM
FM TUNE
IC1
V-REG
AM RF
AM MIX
AGC
COMP
AM OSC
ALC
AM IF
PILOT DET
TRIG
LED DRIV
P.D
VCO
F.F 38kHz
F.F 19kHz ∠90°
F.F 19kHz ∠0°
AM DET
IF-BUFF
FM LEVEL DET
FM-DET
FM-IF
MUTE
(6dB)
DECODER
ST-SW
IC2
SWALLOW COUNTOR 1/16, 1/17, 4BIT
12BIT PROGRAMABLE DIVIDER
PHASE DETECTOR CHARGE PUMP
SHIFT REGISTER LATCH
UNIVERSAL COUNTER
REFERENCE DRIVER
CH SPACE EMPHASYS
10kHz (AM) 100kHz (FM)
9kHz (AM) 50kHz (FM)
75µS
50µS
S101
CN1
Lch
GND
Rch
+27V
+14.5V
STEREO
CLK
DATA
CE
T.MUTE
DO
CH SPACE
PLL
A
J1
J2
75Ω
GND
AM ANT
FM 75Ω
VT
GND
AGC
NC
+B
To GND
To R111
To R38
FM 3.5V
LW 12.1V
MW 0V
(2-7Ω)
h
j
k
a
f
b
g
m
e
c
r
p
d
n
A
B
C
D
E
F
G
H
I
J
K
1
2
3
4
5
6
7

X05- B/3

IC1	:LA1851N	Q1	:2SC1923 (R, O)
IC2	:LC7218	Q2	:2SC1845 (F, E)
		Q3, 4, 7, 107, 108, 113, 114, 116,	:2SC1740S (Q, R) or 2SC2785 (F, E)
		Q11, 12	:2SD2061
		Q109, 110	:2SD1302 (S, T)
		Q5, 102, 103, 111	:2SA933S (Q, R) or :2SA1175 (F, E)

D5 111, 112	:HSS104 or 1SS133
D3	:HZS5.1N (B2) or RD5.1ES (B2)
D11	:HZS13N (B2) or RD13ES (B2)
D120	:HZS3.3N (B2) or RD3.3ES (B2)

X05- A/3

IC201	:M38173M6-153FP	D204	:HZS5.6N (B2) or RD5.6ES (B2)
IC202	:CXP2201AQ		
IC203	:XR-1091ECP	D218	:HZS7.5S (B) or RD7.5JS (B)
IC204	:AN780575F or TA78057S	D219, 220	:HZS16N (B2) or RD16ES (B2)
IC205	:PST529D		
		D236	:B30-1291-05
		D201~203 205~217 221~234, 237	:HSS104 or 1SS133

Q201	:2SA1534 (R, S)
Q202	:2SA933S (Q, R) or 2SA1175 (F, E)
Q203, 205	:2SC1740S (Q, R) or 2SC2785 (F, E)

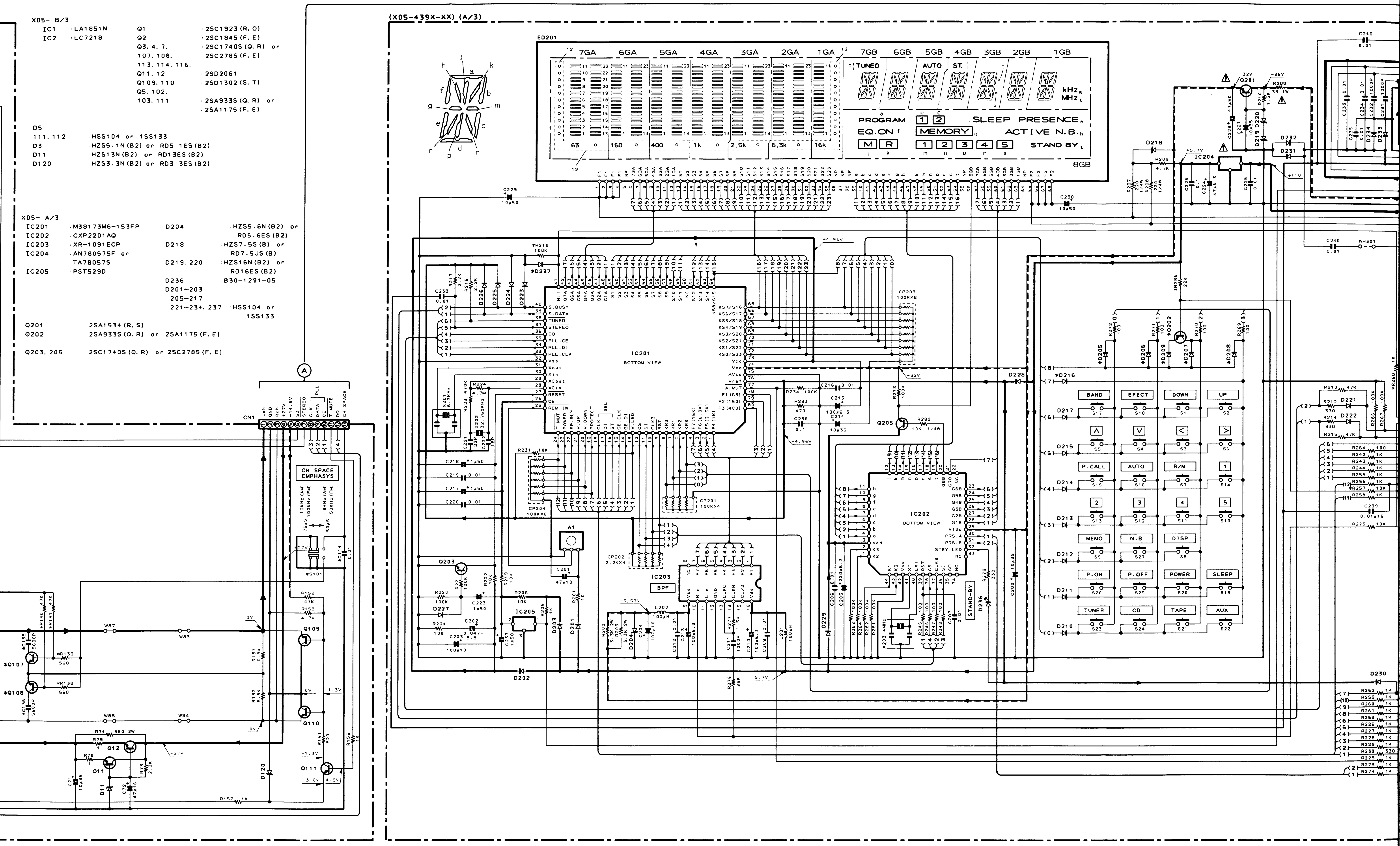
X05- B/3
IC1 :LA1851N
IC2 :LC7218
Q1 :2SC1923(R, O)
Q2 :2SC1845(F, E)
Q3, 4, 7, 107, 108, 113, 114, 116, :2SC1740S(Q, R) or 2SC2785(F, E)
Q11, 12 :2SD2061
Q109, 110 :2SD1302(S, T)
Q5, 102, 103, 111 :2SA933S(Q, R) or :2SA1175(F, E)

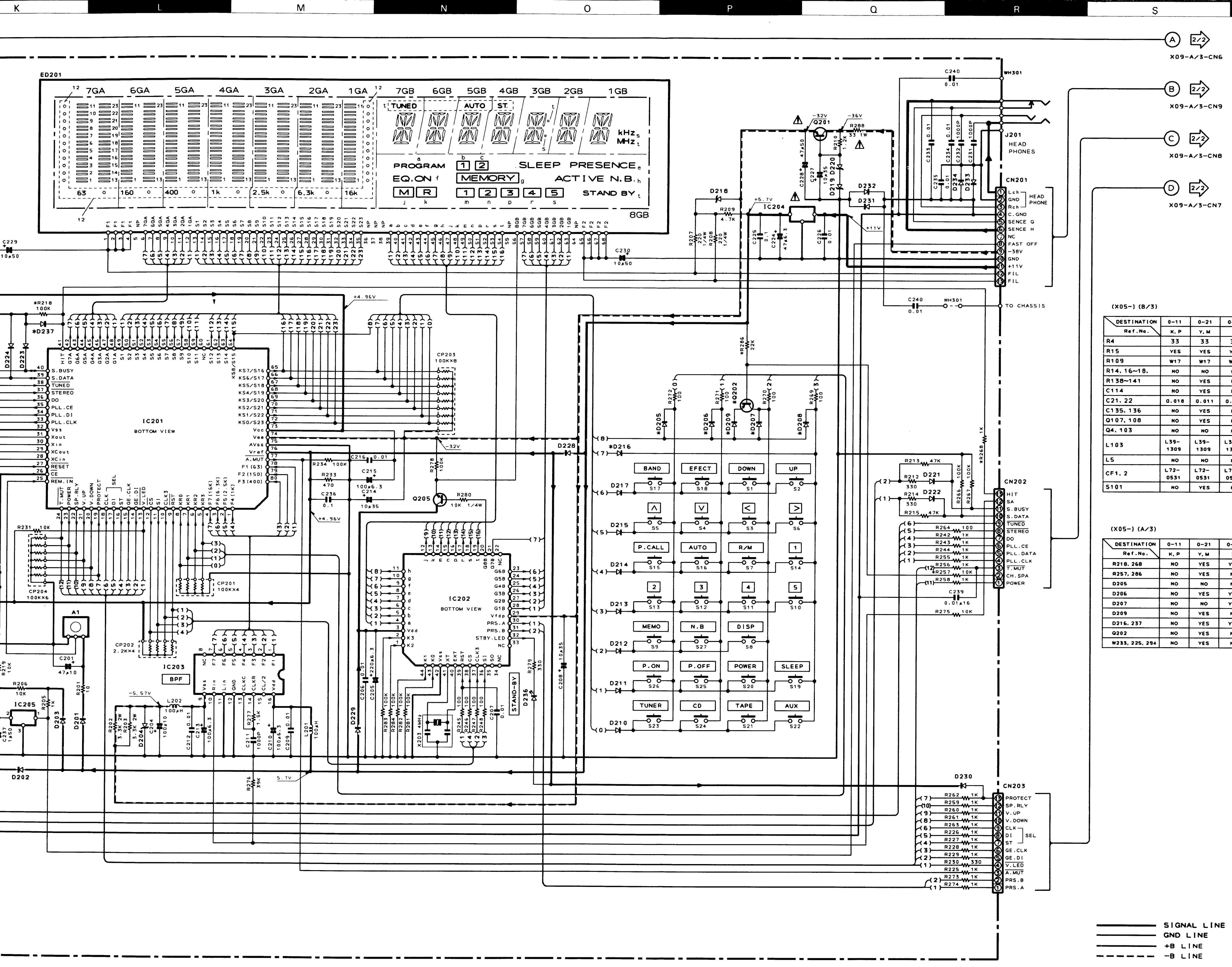
D5 111, 112 :HSS104 or 1SS133
D3 :HZS5.1N(B2) or RD5.1ES(B2)
D11 :HZS13N(B2) or RD13ES(B2)
D120 :HZS3.3N(B2) or RD3.3ES(B2)

X05- A/3
IC201 :M38173M6-153FP
IC202 :CXP2201AQ
IC203 :XR-1091ECP
IC204 :AN780575F or TA78057S
IC205 :PST529D
D204 :HZS5.6N(B2) or RD5.6ES(B2)
D218 :HZS7.5S(B) or RD7.5JS(B)
D219, 220 :HZS16N(B2) or RD16ES(B2)
D236 :B30-1291-05
D201~203 205~217 221~234, 237 :HSS104 or 1SS133

Q201 :2SA1534(R, S)
Q202 :2SA933S(Q, R) or 2SA1175(F, E)

Q203, 205 :2SC1740S(Q, R) or 2SC2785(F, E)


(X05-439X-XX) (A/3)
ED201
7GA 6GA 5GA 4GA 3GA 2GA 1GA 7GB 6GB 5GB 4GB 3GB 2GB 1GB
TUNED
AUTO
ST.
kHz
MHz
PROGRAM 1 2 SLEEP PRESENCE
EQ.ON MEMORY ACTIVE N.B.
M R 1 2 3 4 5 STAND BY
63 160 400 1k 2.5k 6.3k 16k
8GB
IC201
BOTTOM VIEW
S.BUSY
S.DATA
TUNED
STEREO
DO
PLL.CE
PLL.DI
PLL.CLK
Vss
Xout
Xin
XCout
XCin
RESET
CE
REM.IN
A.MUT
F1(63)
F2(150)
F3(400)
F4(1K)
F5(2.5K)
F6(6.3K)
F7(16K)
+4.96V
IC202
BOTTOM VIEW
Vfdp
PRS.A
PRS.B
STBY.LED
STAND-BY
IC203
BPF
IC204
IC205
Q201
Q202
Q203
Q205
A1
CN1
CH SPACE EMPHASYS
10kHz (AM) 100kHz (FM)
9kHz (AM) 50kHz (FM)
75µS 50µS
*S101
Lch GND Rch +27V -14.5V SD STEREO CLK DATA CE T.MUTE DO CH SPACE
PLL
X201 6.3KHz
X202 32.768KHz
X203 4MHz
CP201 100K×4
CP202 2.2K×4
CP203 100K×8
CP204 100K×6
-32V
-36V
+5.7V
+11V
5.7V
-5.57V
WH301
BAND EFECT DOWN UP
S17 S18 S1 S2
S5 S4 S3 S6
P.CALL AUTO R/M 1
S15 S16 S7 S14
2 3 4 5
S13 S12 S11 S10
MEMO N.B DISP
S9 S27 S8
P.ON P.OFF POWER SLEEP
S26 S25 S20 S19
TUNER CD TAPE AUX
S23 S24 S21 S22
Q107 Q108 Q109 Q110 Q111 Q11 Q12
D11 D120
+27V
-1.3V
3.6V
4.9V
0V
W87 W83 W88 W84


K
L
M
N
O
P
Q
R
S
T
U
A 2/2 X09-A/3-CN6
B 2/2 X09-A/3-CN9
C 2/2 X09-A/3-CN8
D 2/2 X09-A/3-CN7
ED201
7GA 6GA 5GA 4GA 3GA 2GA 1GA
7GB 6GB 5GB 4GB 3GB 2GB 1GB
TUNED
AUTO
ST.
kHz
MHz
PROGRAM
SLEEP
PRESENCE
EQ.ON
MEMORY
ACTIVE N.B.
STAND BY
63
160
400
1k
2.5k
6.3k
16k
8GB
WH301
C240 0.01
Q201
R288 33 1W
J201 HEAD PHONES
CN201
Lch
GND
Rch
C.GND
SENCE G
SENCE H
NC
FAST OFF
−38V
GND
+11V
FIL
FIL
HEAD PHONE
D218
D232
D231
IC204
R209 4.7K
+5.7V
+11V
TO CHASSIS
IC201 BOTTOM VIEW
S.BUSY
S.DATA
TUNED
STEREO
DO
PLL.CE
PLL.DI
PLL.CLK
Vss
Xout
Xin
XCout
XCin
RESET
CE
REM.IN
KS7/S16
KS6/S17
KS5/S18
KS4/S19
KS3/S20
KS2/S21
KS1/S22
KS0/S23
Vcc
Vee
AVss
Vref
A.MUT
F1 (63)
F2 (150)
F3 (400)
CP203 100K×8
CP201 100K×4
CP204 100K×6
CP202 2.2K×4
IC202 BOTTOM VIEW
IC203 BPF
IC205
A1
Q205
R280 10K 1/4W
X203 4MHz
STAND-BY
D236
L202 100µH
L201 100µH
−5.57V
+4.96V
−32V
D228
*D216
*Q202
BAND
EFECT
DOWN
UP
S17 S18 S1 S2
S5 S4 S3 S6
P.CALL
AUTO
R/M
1
S15 S16 S7 S14
2
3
4
5
S13 S12 S11 S10
MEMO
N.B
DISP
S9 S27 S8
P.ON
P.OFF
POWER
SLEEP
S26 S25 S20 S19
TUNER
CD
TAPE
AUX
S23 S24 S21 S22
D217 D215 D214 D213 D212 D211 D210
CN202
HIT
SA
S.BUSY
S.DATA
TUNED
STEREO
DO
PLL.CE
PLL.DATA
PLL.CLK
T.MUT
CH.SPA
POWER
D221
D222
C239 0.01µ16
CN203
D230
PROTECT
SP.RLY
V.UP
V.DOWN
CLK
DI
SEL
ST
GE.CLK
GE.DI
V.LED
A.MUT
PRS.B
PRS.A
D202
D203
D201

(X05-) (B/3)

DESTINATION / Ref.No.	0-11	0-21	0-71	2-71
	K.P	Y.M	X	T.E
R4	33	33	33	10
R15	YES	YES	YES	NO
R109	W17	W17	W17	YES
R14.16~18.	NO	NO	NO	YES
R138~141	NO	YES	NO	NO
C114	NO	YES	NO	NO
C21.22	0.018	0.011	0.011	0.011
C135.136	NO	YES	NO	NO
Q107.108	NO	YES	NO	NO
Q4.103	NO	NO	NO	YES
L103	L39-1309	L39-1309	L39-1309	L39-1310
L5	NO	NO	NO	YES
CF1.2	L72-0531	L72-0531	L72-0531	L72-0536
S101	NO	YES	NO	NO

(X05-) (A/3)

DESTINATION / Ref.No.	0-11	0-21	0-71	2-71
	K.P	Y.M	X	T.E
R218.268	NO	YES	YES	NO
R257.286	NO	YES	NO	NO
D205	NO	NO	NO	YES
D206	NO	YES	YES	NO
D207	NO	NO	YES	YES
D209	NO	YES	NO	NO
D216.237	NO	YES	YES	NO
Q202	NO	YES	NO	NO
W233.225.294	NO	YES	NO	NO

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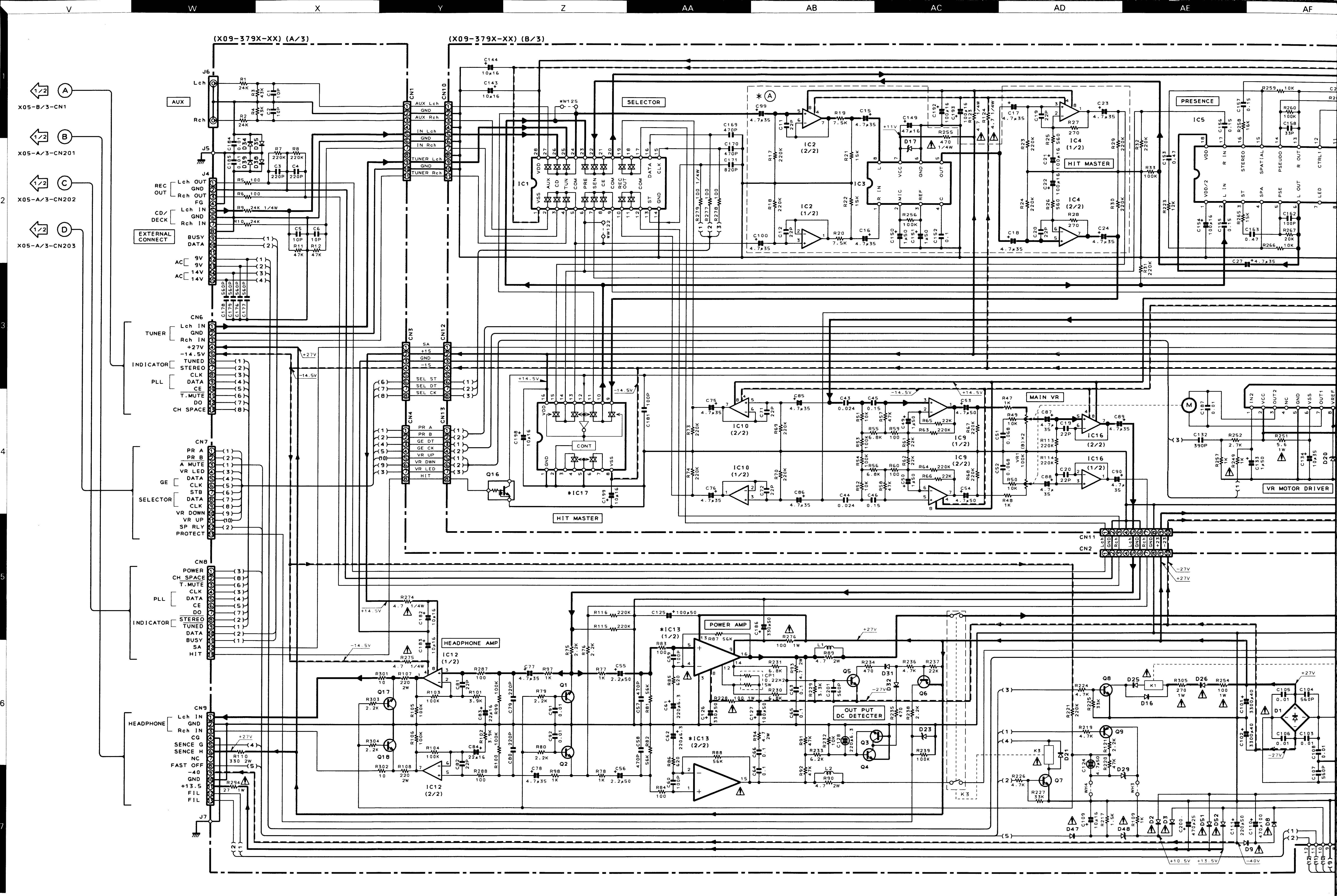
——— SIGNAL LINE
——— GND LINE
——— +B LINE
- - - - −B LINE

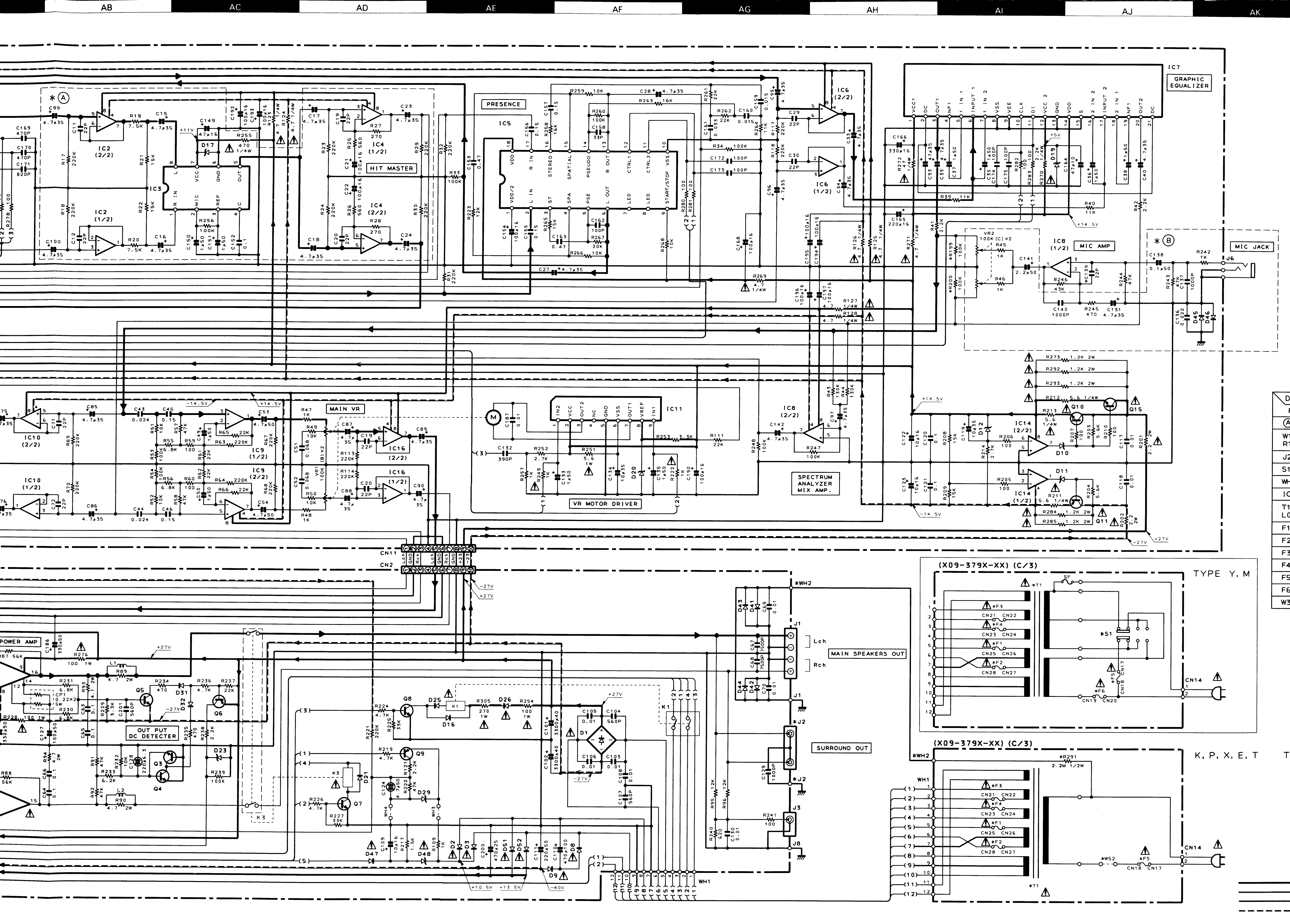
1/2

A-B3

KENWOOD

Y05-2730-11


V
W
X
Y
Z
AA
AB
AC
AD
AE
AF
(X09-379X-XX) (A/3)
(X09-379X-XX) (B/3)
1/2 A X05-B/3-CN1
1/2 B X05-A/3-CN201
1/2 C X05-A/3-CN202
1/2 D X05-A/3-CN203
AUX
J6
Lch
Rch
J5
J4
REC OUT
CD/ DECK
EXTERNAL CONNECT
BUSY
DATA
AC 9V
AC 14V
CN6
TUNER
+27V
-14.5V
INDICATOR
TUNED
STEREO
PLL
CLK
DATA
CE
T.MUTE
DO
CH SPACE
CN7
PR A
PR B
A MUTE
VR LED
GE
SELECTOR
STB
VR DOWN
VR UP
SP RLY
PROTECT
CN8
POWER
SA
HIT
CN9
HEADPHONE
CG
SENCE G
SENCE H
NC
FAST OFF
-40
GND
+13.5
FIL
J7
CN1
CN10
AUX Lch
AUX Rch
IN Lch
IN Rch
TUNER Lch
TUNER Rch
CN3
CN12
+15
-15
SEL ST
SEL DT
SEL CK
CN4
CN13
GE DT
GE CK
VR UP
VR DWN
VR LED
SELECTOR
IC1
*W125
*W122
IC2 (2/2)
IC2 (1/2)
IC3
*A
D17
IC4 (1/2)
IC4 (2/2)
HIT MASTER
PRESENCE
IC5
VDD
R IN
STEREO
SPATIAL
PSEUDO
R OUT
CTRL
VDD/2
L IN
ST
SPA
PSE
L OUT
LED
IC10 (2/2)
IC10 (1/2)
IC9 (1/2)
IC9 (2/2)
MAIN VR
VR1 100K (B)×2
IC16 (2/2)
IC16 (1/2)
M
VR MOTOR DRIVER
*IC17
CONT
Q16
HIT MASTER
CN11
CN2
-27V
+27V
HEADPHONE AMP
IC12 (1/2)
IC12 (2/2)
Q17
Q18
Q1
Q2
*IC13 (1/2)
*IC13 (2/2)
POWER AMP
OUT PUT DC DETECTER
Q3
Q4
Q5
Q6
D31
D32
D23
K3
Q7
Q8
Q9
K1
D16
D25
D26
D29
D1
D2
D3
D47
D48
D51
D52
D8
D9
D20
WH3
WH4
+10.5V
+13.5V
-40V
+14.5V
-14.5V
+11V


AB
AC
AD
AE
AF
AG
AH
AI
AJ
AK
*Ⓐ
IC2 (2/2)
IC2 (1/2)
IC3
L
R IN
VCC
GND
OUT
MIC
REF
C
IC4 (1/2)
IC4 (2/2)
HIT MASTER
PRESENCE
IC5
VDD
R IN
STEREO
SPATIAL
PSEUDO
R OUT
CTRL1
CTRL2
VSS
VDD/2
L IN
ST
SPA
PSE
L OUT
LED
START/STOP
IC6 (2/2)
IC6 (1/2)
IC7
GRAPHIC EQUALIZER
VCC1
DC
OUT1
NF1
1 IN 1
INPUT 1
1 IN 2
VSS
VEE
CLK
DI
VCC 2
GND
VDD
S
2 IN 2
INPUT 2
2 IN 1
NF1
OUT2
IC8 (1/2)
MIC AMP
*Ⓑ
MIC JACK
J6
VR2 100K (C) ×2
IC10 (2/2)
IC10 (1/2)
IC9 (1/2)
IC9 (2/2)
MAIN VR
VR1 100K (B) ×2
IC16 (2/2)
IC16 (1/2)
IC11
IN2
VCC
OUT2
NC
GND
VSS
OUT1
VREF
IN1
VR MOTOR DRIVER
IC8 (2/2)
SPECTRUM ANALYZER MIX AMP.
IC14 (2/2)
IC14 (1/2)
Q10
Q15
Q11
D10
D11
D12
+14.5V
-14.5V
+27V
-27V
CN11
CN2
Lch
GND
Rch
POWER AMP
OUT PUT DC DETECTER
Q3
Q4
Q5
Q6
Q7
Q8
Q9
K1
K3
D1
*WH2
J1
Lch
Rch
MAIN SPEAKERS OUT
*J2
SURROUND OUT
J3
J8
WH1
WH3
WH4
+10.5V
+13.5V
-40V
(X09-379X-XX) (C/3)
TYPE Y, M
*T1
SF
*S1
CN14
(X09-379X-XX) (C/3)
K, P, X, E, T TYPE
*R291 2.2M 1/2W
*WS2
SIGNAL LINE
GND LINE
+B LINE
-B LINE

IC1
IC2, 4, 8, 10
IC3
IC5
IC6, 14
IC7
IC9, 16
IC11
IC12
IC13
IC17

Q1, 2, 17, 18
Q3, 4, 7, 8
Q5
Q6, 9
Q10, 15
Q11
Q16

D1
D2, 3, 16, 21,
25, 26, 31, 32,
35, 38, 39, 41
D8, 9, 51, 52
D10, 11
D12
D17
D19, 23, 29
D20, 48

DESTINATION Ref.No.
Ⓐ, Ⓑ, IC17, C139
W122, 125, R119, 120
J2
S1, R291
WH2
IC13
T1 L07-XXXX-05
F1
F2
F3
F4
F5
F6
W38, 52

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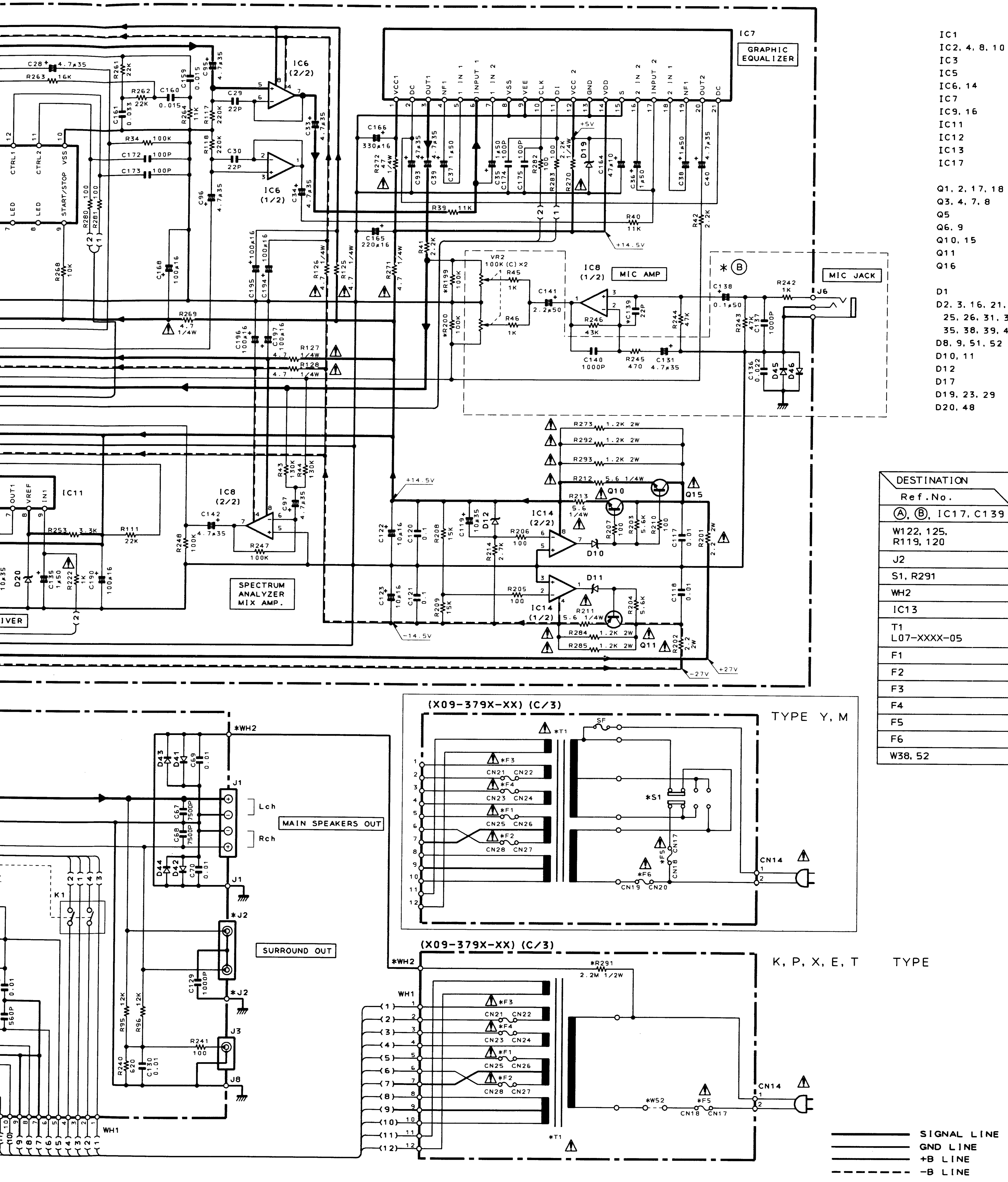
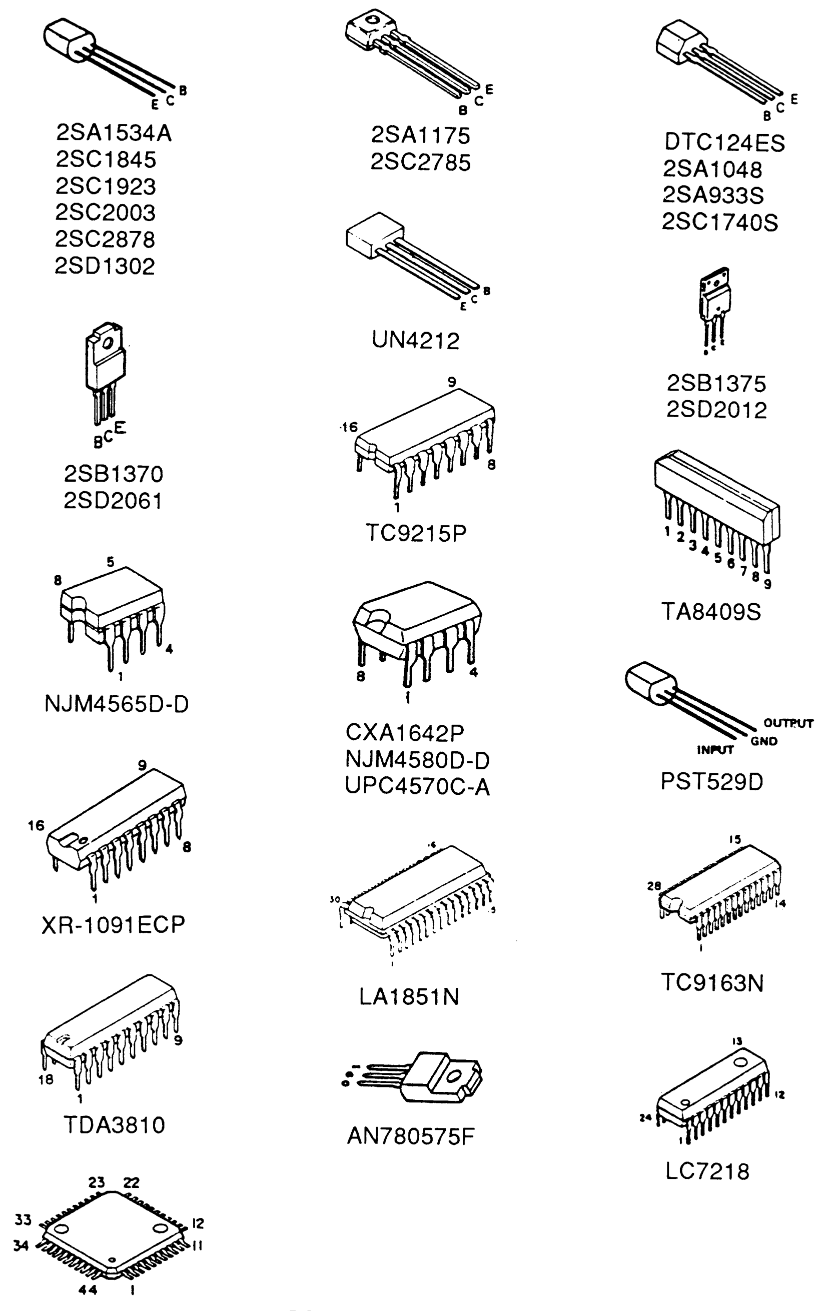

IC7
GRAPHIC EQUALIZER
IC6 (2/2)
IC6 (1/2)
IC8 (1/2)
MIC AMP
MIC JACK
J6
VR2 100K (C) X2
IC8 (2/2)
IC11
SPECTRUM ANALYZER MIX AMP.
IC14 (2/2)
IC14 (1/2)
Q10
Q11
Q15
+14.5V
-14.5V
+27V
-27V
+5V
*WH2
J1
Lch
Rch
MAIN SPEAKERS OUT
*J2
SURROUND OUT
J3
J8
K1
WH1
(X09-379X-XX) (C/3)
TYPE Y, M
K, P, X, E, T TYPE
*S1
*T1
CN14
SIGNAL LINE
GND LINE
+B LINE
-B LINE

IC1 : TC9163N
IC2, 4, 8, 10 : NJM4565D-D or XRA15218-DX
IC3 : CXA1642P
IC5 : TDA3810
IC6, 14 : NJM4580D-D
IC7 : STK301-090
IC9, 16 : µPC4570C-A
IC11 : TA8409S
IC12 : NJM4580L-D
IC13 : *
IC17 : TC9215P

Q1, 2, 17, 18 : 2SC2878 (B)
Q3, 4, 7, 8 : 2SC2003 (L, K)
Q5 : 2SC1845 (F, E)
Q6, 9 : 2SA933S (Q, R) or 2SA1175 (F, E)
Q10, 15 : 2SD2012 or 2SD2061
Q11 : 2SB1370 or 2SB1375
Q16 : DTC124ES or UN4212

D1 : D3SBA20F03 or RBV-402LFA
D2, 3, 16, 21, 25, 26, 31, 32, 34, 35, 38, 39, 41~47 : 1SS131 or HSS104A
D8, 9, 51, 52 : 1SR139-100 or S56688
D10, 11 : RD16ES (B) or HZS16N (B)
D12 : RD13ES (B) or HZS13N (B)
D17 : RD11ES (B) or HZS11N (B)
D19, 23, 29 : RD4.7ES (B) or HZS4.7N (B)
D20, 48 : RD3.3ES (B) or HZS3.3N (B)

DESTINATION / Ref.No.	0-11	0-21	0-71	2-71
	K, P	Y, M	X	T, E
Ⓐ, Ⓑ, IC17, C139	NO	YES	YES	NO
W122, 125, R119, 120	YES	NO	NO	YES
J2	NO	YES	YES	NO
S1, R291	NO	YES	NO	NO
WH2	YES	NO	NO	NO
IC13	STK401-041	STK401-051		STK401-241
T1 L07-XXXX-05	0658	0659	0660	0662
F1	125V4A	250VT3.15A	250VT3.15A	250VT3.15A
F2	125V4A	250VT3.15A	250VT3.15A	250VT3.15A
F3	250V2A	250VT1.6A	250VT1.6A	250VT1.6A
F4	250V2A	250VT1.6A	250VT1.6A	250VT1.6A
F5	125V4A	250VT1.6A	250VT1.6A	250VT1.6A
F6	NO	250VT1.6A	NO	NO
W38, 52	YES	NO	YES	YES


2SA1534A
2SC1845
2SC1923
2SC2003
2SC2878
2SD1302
2SA1175
2SC2785
DTC124ES
2SA1048
2SA933S
2SC1740S
UN4212
2SB1370
2SD2061
TC9215P
2SB1375
2SD2012
TA8409S
NJM4565D-D
CXA1642P
NJM4580D-D
UPC4570C-A
PST529D
OUTPUT
GND
INPUT
XR-1091ECP
LA1851N
TC9163N
TDA3810
AN780575F
LC7218
CXP2201AQ
E
C
B

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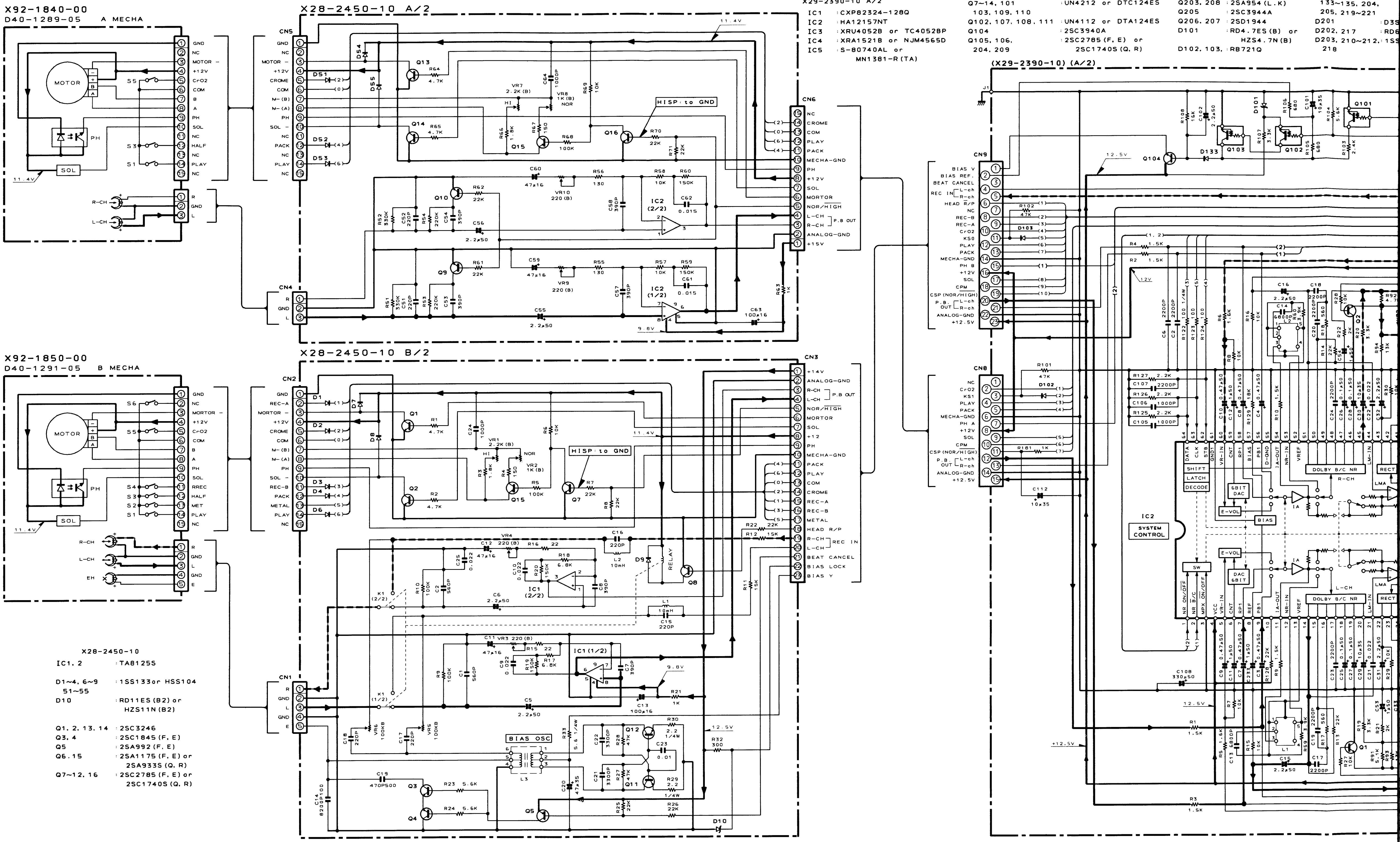
2/2

A-B3

Y05-2730-11

KENWOOD


X92-1840-00
D40-1289-05 A MECHA
X28-2450-10 A/2
X92-1850-00
D40-1291-05 B MECHA
X28-2450-10 B/2
(X29-2390-10) (A/2)
MOTOR
PH
SOL
CN1
CN2
CN3
CN4
CN5
CN6
CN8
CN9
GND
NC
MOTOR −
+12V
CrO2
COM
B
A
PH
SOL
HALF
PLAY
R-CH
L-CH
EH
RREC
MET
11.4V
12.5V
9.8V
HISP: to GND
BIAS OSC
IC1 (2/2)
IC1 (1/2)
IC2 (2/2)
IC2 (1/2)
RELAY
P.B OUT
REC IN
MECHA-GND
NOR/HIGH
ANALOG-GND
HEAD R/P
BEAT CANCEL
BIAS LOCK
BIAS Y
REC-A
REC-B
METAL
IC2
SYSTEM CONTROL
DOLBY B/C NR
R-CH
L-CH
E-VOL
6BIT DAC
DAC 6BIT
BIAS
SW
DATA
CLK
STB
SHIFT
LATCH
DECODE
LMA
RECT

X29-2390-10 A/2

IC1 :CXP82324-128Q
IC2 :HA12157NT
IC3 :XRU4052B or TC4052BP
IC4 :XRA1521B or NJM4565D
IC5 :S-80740AL or
MN1381-R(TA)

Q1~6 :2SC2878(B)
Q7~14, 101
103, 109, 110 :UN4212 or DTC124ES
Q102, 107, 108, 111 :UN4112 or DTA124ES
Q104 :2SC3940A
Q105, 106,
204, 209 :2SC2785(F, E) or
2SC1740S(Q, R)

Q201, 202 :2SD2061
Q203, 208 :2SA954(L.K)
Q205 :2SC3944A
Q206, 207 :2SD1944
D101 :RD4.7ES(B) or
HZS4.7N(B)
D102, 103, :RB721Q

D104~113,
133~135, 204,
205, 219~221 :1SS
D201 :D3S
D202, 217 :RD
D203, 210~212,
218 :1SS

X28-2450-10

IC1, 2 :TA8125S

D1~4, 6~9
51~55 :1SS133or HSS104
D10 :RD11ES(B2) or
HZS11N(B2)

Q1, 2, 13, 14 :2SC3246
Q3, 4 :2SC1845(F, E)
Q5 :2SA992(F, E)
Q6.15 :2SA1175(F, E) or
2SA933S(Q, R)
Q7~12, 16 :2SC2785(F, E) or
2SC1740S(Q, R)

X29-2390-10 A/2

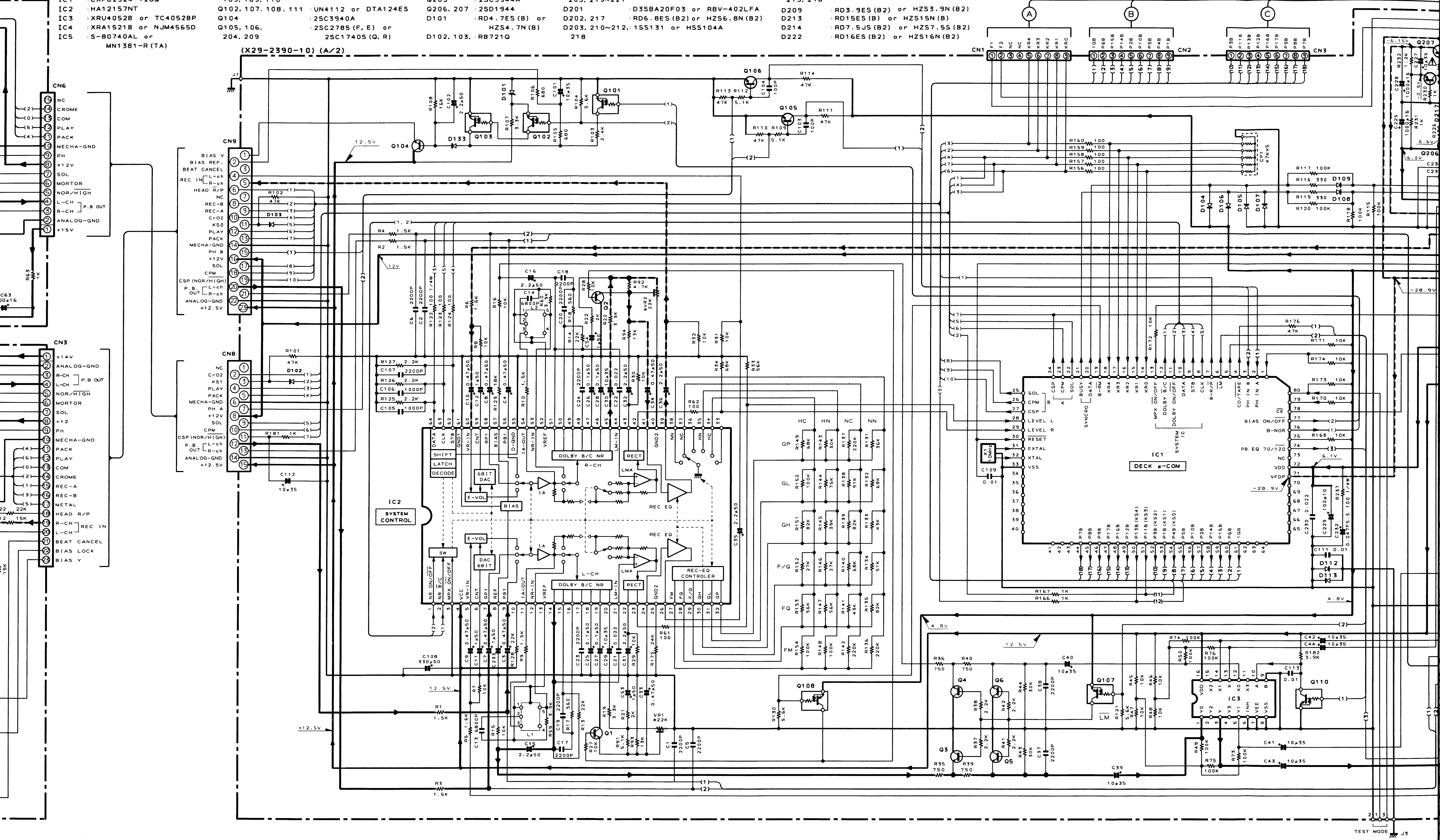
IC1 : CXP82324-128Q
IC2 : HA12157NT
IC3 : XRU4052B or TC4052BP
IC4 : XRA1521B or NJM4565D
IC5 : S-80740AL or MN1381-R(TA)

Q1~6 : 2SC2878(B)
Q7~14, 101, 103, 109, 110 : UN4212 or DTC124ES
Q102, 107, 108, 111 : UN4112 or DTA124ES
Q104 : 2SC3940A
Q105, 106, 204, 209 : 2SC2785(F, E) or 2SC1740S(Q, R)

Q201, 202 : 2SD2061
Q203, 208 : 2SA954(L.K)
Q205 : 2SC3944A
Q206, 207 : 2SD1944
D101 : RD4.7ES(B) or HZS4.7N(B)
D102, 103, : RB721Q

D104~113, 133~135, 204, 205, 219~221 : 1SS133 or HSS104
D201 : D3SBA20F03 or RBV-402LFA
D202, 217 : RD6.8ES(B2) or HZS6.8N(B2)
D203, 210~212, 218 : 1SS131 or HSS104A

D206 : RD6.2ES(B2) or HZS6.2N(B2)
D207, 208, 215, 216 : S5565B or 1SR139-100
D209 : RD3.9ES(B2) or HZS3.9N(B2)
D213 : RD15ES(B) or HZS15N(B)
D214 : RD7.5JS(B2) or HZS7.5S(B2)
D222 : RD16ES(B2) or HZS16N(B2)

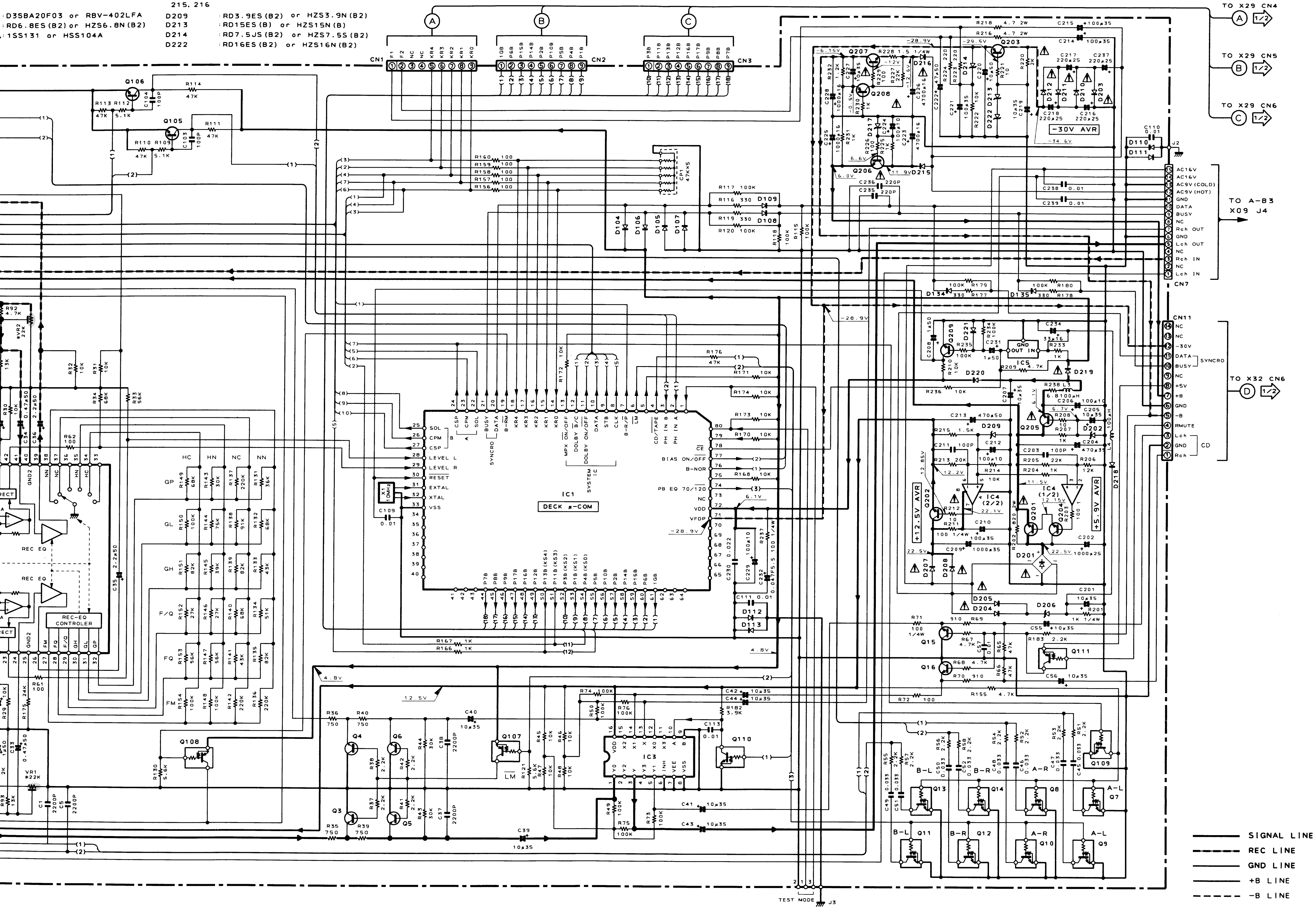

(X29-2390-10) (A/2)
CN6
CN9
CN8
CN3
CN1
CN2
CN3
A
B
C
IC1
DECK μ-COM
IC2
SYSTEM CONTROL
IC3
DOLBY B/C NR
R-CH
L-CH
REC EQ
REC-EQ CONTROLER
LMA
RECT
E-VOL
6BIT DAC
BIAS
SHIFT
LATCH
DECODE
SW
Q101
Q102
Q103
Q104
Q105
Q106
Q107
Q108
Q110
Q1
Q2
Q3
Q4
Q5
Q6
Q206
Q207
12.5V
+12.5V
4.8V
6.1V
-28.9V
6.6V
-6.15V
TEST MODE
J1
J3

K L M N O P Q R S T U

:1SS133 or HSS104

:D3SBA20F03 or RBV-402LFA
:RD6.8ES(B2) or HZS6.8N(B2)
:1SS131 or HSS104A

D206 :RD6.2ES(B2) or HZS6.2N(B2)
D207, 208
215, 216 :S55658 or 1SR139-100
D209 :RD3.9ES(B2) or HZS3.9N(B2)
D213 :RD15ES(B) or HZS15N(B)
D214 :RD7.5JS(B2) or HZS7.5S(B2)
D222 :RD16ES(B2) or HZS16N(B2)



CN1
CN2
CN3
TO X29 CN4
TO X29 CN5
TO X29 CN6
CN7
TO A-B3 X09 J4
AC16V
AC16V
AC9V (COLD)
AC9V (HOT)
GND
DATA
BUSY
NC
Rch OUT
GND
Lch OUT
NC
Rch IN
NC
Lch IN
CN11
SYNCRO
TO X32 CN6
CD
-30V AVR
+12.5V AVR
+5.9V AVR
IC1
DECK µ-COM
IC3
IC4 (1/2)
IC4 (2/2)
IC5
REC EQ
REC-EQ CONTROLER
SYSTEM IC
TEST MODE
J3
SIGNAL LINE
REC LINE
GND LINE
+B LINE
-B LINE

DC voltages are as measured with a high impedance voltmeter with a cassette loaded at playback mode. Values may vary slightly due to variations between individual instruments or/and units. Bias circuit DC voltages are as measured while in the record mode.

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impedance, une cassette étant insérée en mode du lecture. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.
Les tensions c.c. du circuit de polarité doivent être mesurées, l'appareil étant en mode d'enregistrement.

Die angegebenen Gleichspannungswerte wurden bei eingesetzter Cassette in der Wiedergabe mit einem hochomigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig. Die angegebenen Gleichspannungswerte der Vormagnetisierungsschaltung wurden in der Aufnahme-Betriebsart gemessen.

CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

1/2

X-B3

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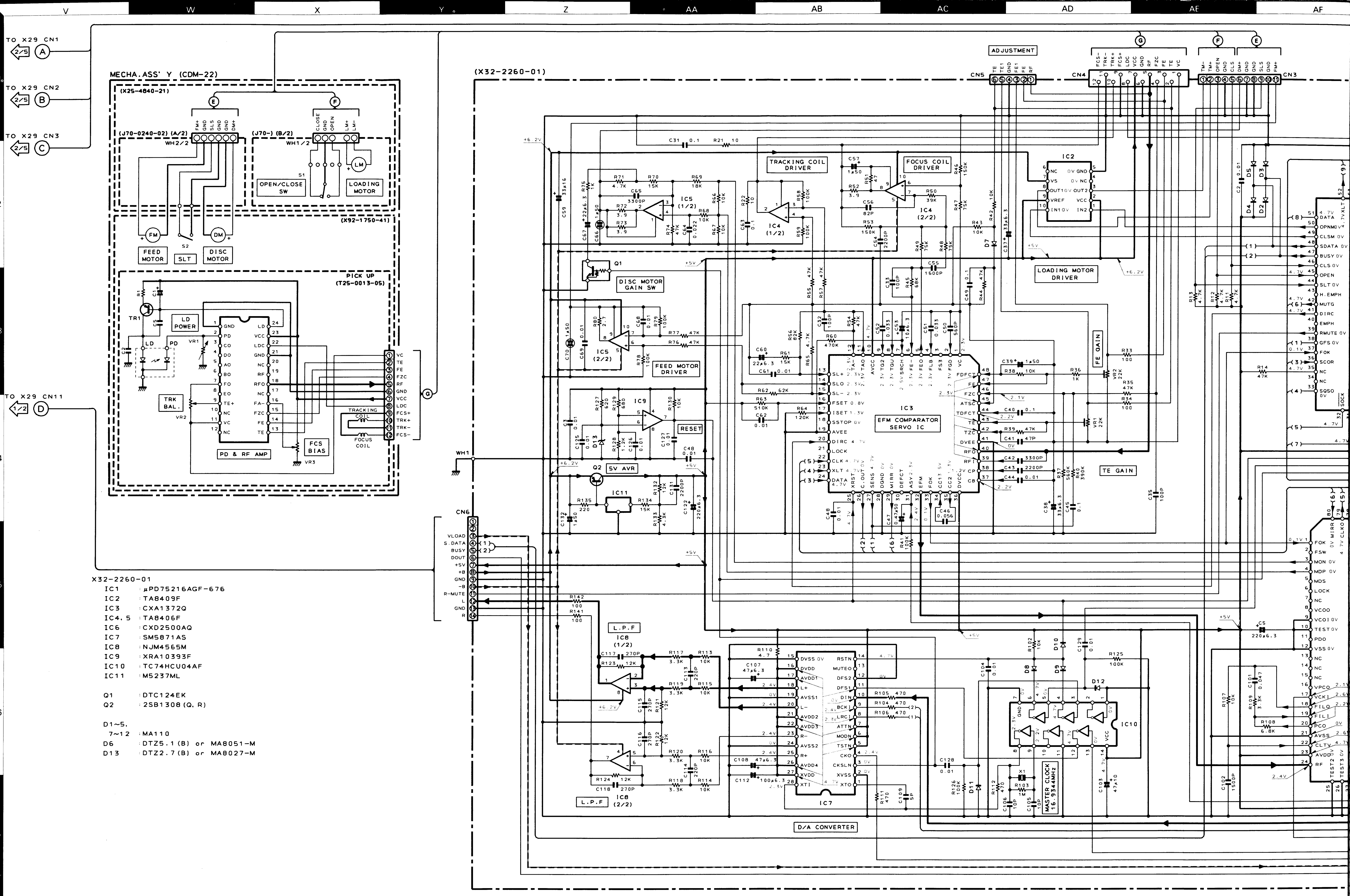
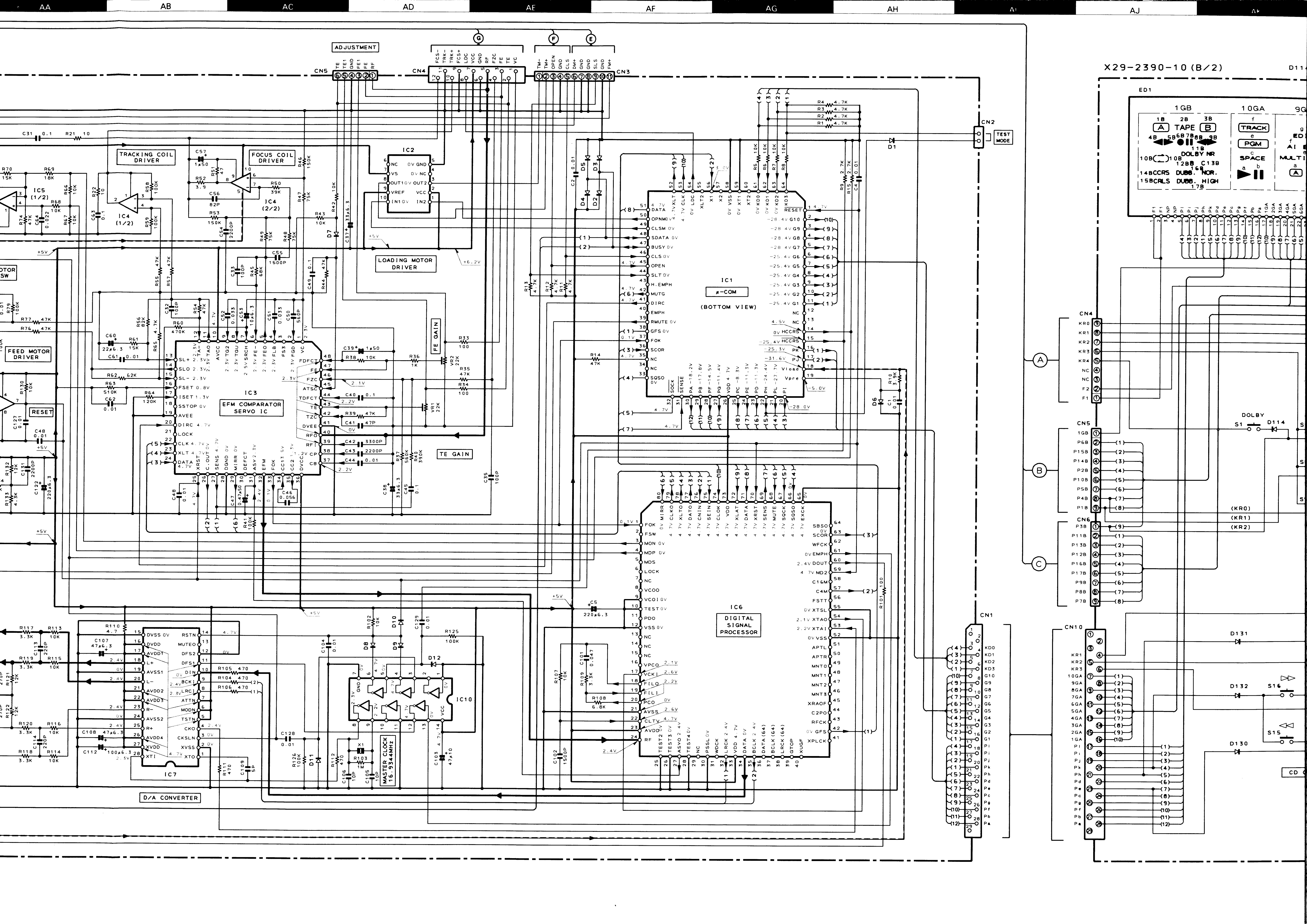
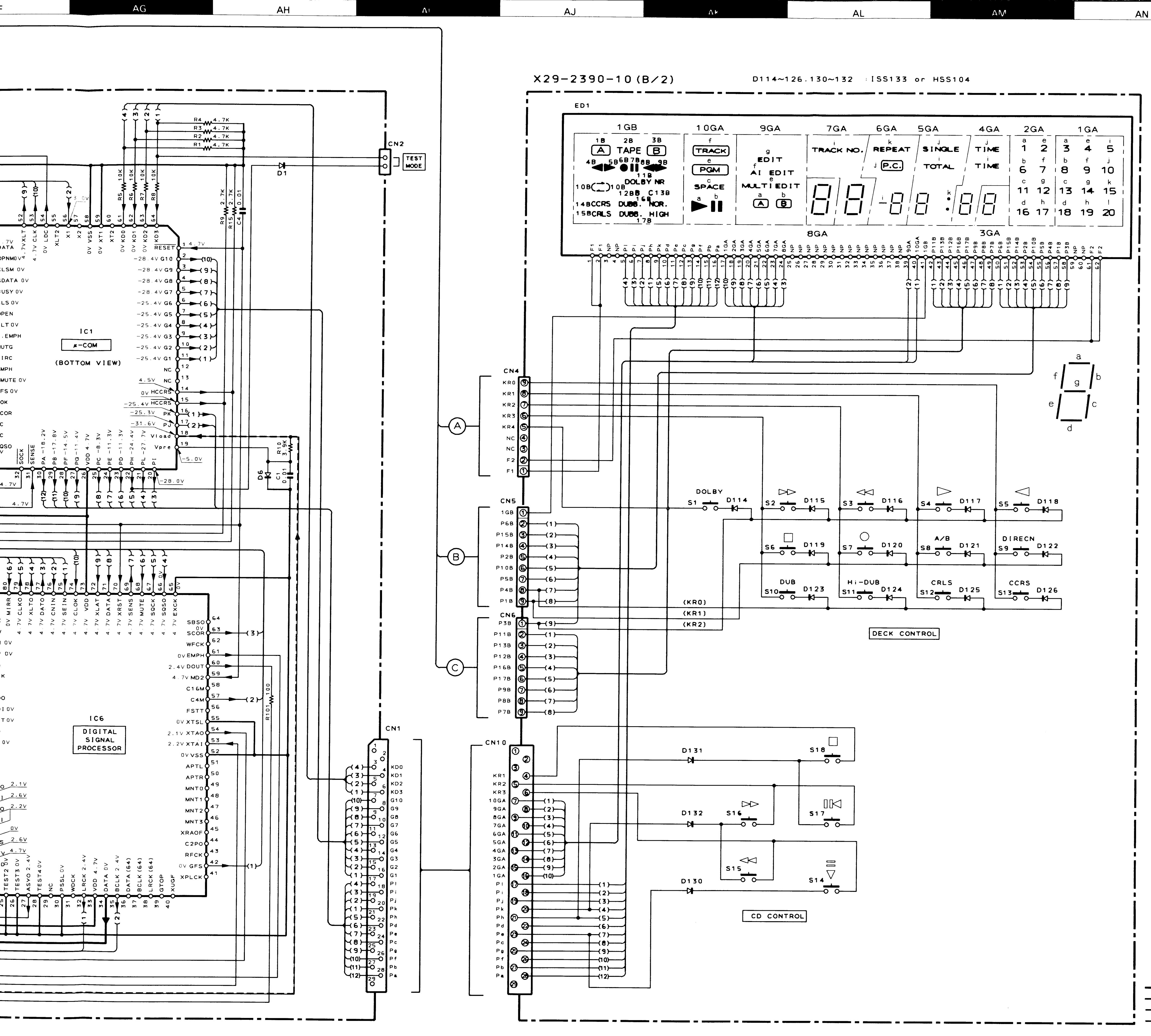

V
W
X
Y
Z
AA
AB
AC
AD
AE
AF
TO X29 CN1
2/5 A
TO X29 CN2
2/5 B
TO X29 CN3
2/5 C
TO X29 CN11
1/2 D
MECHA.ASS'Y (CDM-22)
(X25-4840-21)
(J70-0240-02) (A/2)
WH2/2
(J70-) (B/2)
WH1/2
FM+ GND SLS GND GND DM+
CLOSE GND OPEN LM+ LM-
S1
OPEN/CLOSE SW
LOADING MOTOR
LM
(X92-1750-41)
FM
FEED MOTOR
S2
SLT
DM
DISC MOTOR
PICK UP
(T25-0013-05)
TR1
LD POWER
LD
PD
VR1
VR2
VR3
TRK BAL.
FCS BIAS
PD & RF AMP
TRACKING COIL
FOCUS COIL
VC TE FE FZC RF GND VCC LDC FCS+ TRK+ TRK- FCS-
(X32-2260-01)
ADJUSTMENT
CN5
TE TE1 GND FE FE1 RF
CN4
FCS- TRK- TRK+ FCS+ LDC VCC GND RF FZC FE TE VC
CN3
TM- TM+ OPEN GND CLS DM+ DM- GND SLS GND FM+
TRACKING COIL DRIVER
FOCUS COIL DRIVER
IC2
IC3
EFM COMPARATOR SERVO IC
IC4 (1/2)
IC4 (2/2)
IC5 (1/2)
IC5 (2/2)
Q1
DISC MOTOR GAIN SW
FEED MOTOR DRIVER
IC9
RESET
Q2
5V AVR
IC11
LOADING MOTOR DRIVER
FE GAIN
TE GAIN
WH1
CN6
VLOAD
S.DATA
BUSY
DOUT
+5V
+B
GND
-B
R-MUTE
L
GND
R
L.P.F
IC8 (1/2)
IC8 (2/2)
IC7
D/A CONVERTER
IC10
MASTER CLOCK 16.9344MHz
X1
+6.2V
+5V

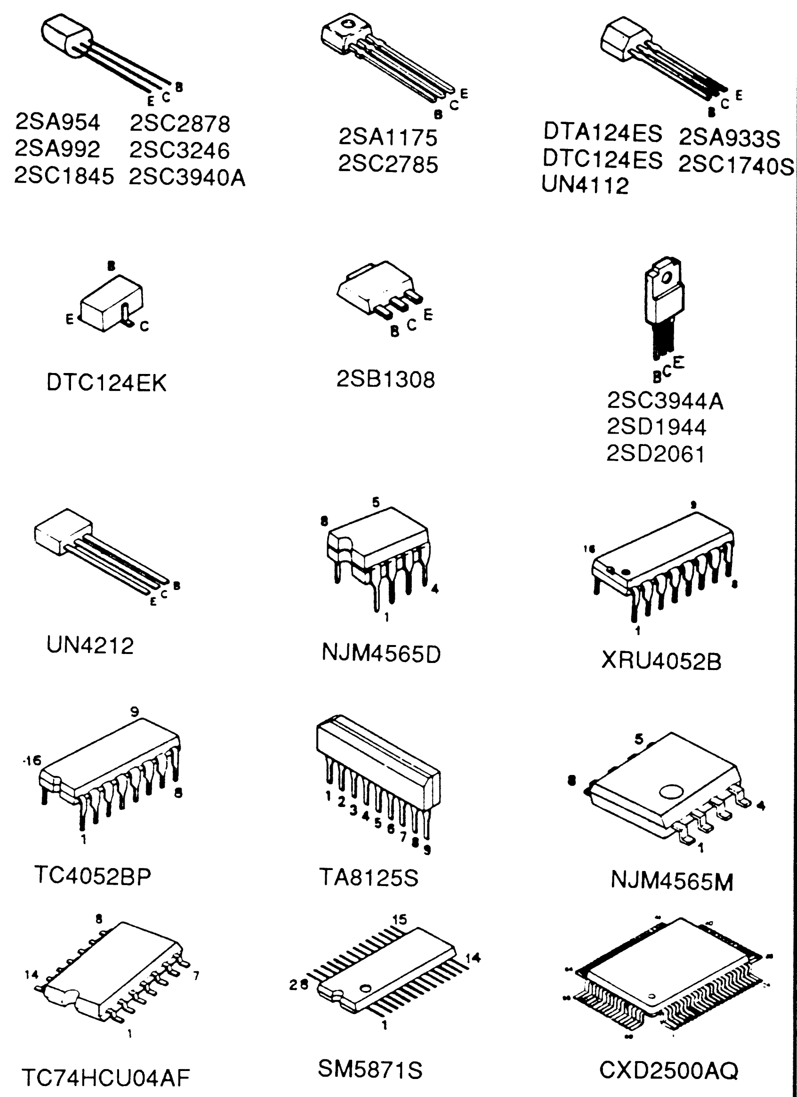
X32-2260-01

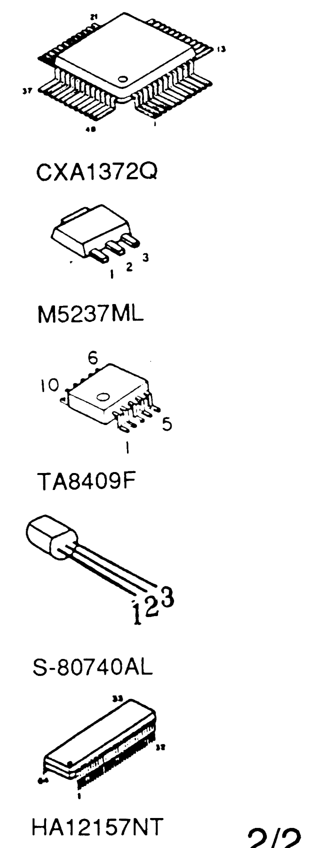
IC1	:µPD75216AGF-676
IC2	:TA8409F
IC3	:CXA1372Q
IC4, 5	:TA8406F
IC6	:CXD2500AQ
IC7	:SM5871AS
IC8	:NJM4565M
IC9	:XRA10393F
IC10	:TC74HCU04AF
IC11	:M5237ML
Q1	:DTC124EK
Q2	:2SB1308(Q, R)
D1~5, 7~12	:MA110
D6	:DTZ5.1(B) or MA8051-M
D13	:DTZ2.7(B) or MA8027-M



AA
AB
AC
AD
AE
AF
AG
AH
AJ
X29-2390-10 (B/2)
ADJUSTMENT
CN5
CN4
CN3
CN2
TEST MODE
TRACKING COIL DRIVER
FOCUS COIL DRIVER
LOADING MOTOR DRIVER
FEED MOTOR DRIVER
RESET
IC1
µ-COM
(BOTTOM VIEW)
IC2
IC3
EFM COMPARATOR SERVO IC
IC4 (1/2)
IC4 (2/2)
IC5 (1/2)
IC6
DIGITAL SIGNAL PROCESSOR
IC7
D/A CONVERTER
IC10
MASTER CLOCK 16.9344MHz
FE GAIN
TE GAIN
CN1
CN4
CN5
CN6
CN10
ED1
1GB
10GA
TAPE
TRACK
PGM
SPACE
DOLBY NR
DUBB. NOR.
DUBB. HIGH
DOLBY
S1
D114
S15
S16
D130
D131
D132
CD


AG
AH
AJ
AL
AN
AP
X29-2390-10 (B/2)
D114~126.130~132 : ISS133 or HSS104
ED1
1GB
10GA
9GA
7GA
6GA
5GA
4GA
2GA
1GA
8GA
3GA
TAPE
TRACK
PGM
SPACE
EDIT
AI EDIT
MULTI EDIT
DOLBY NR
DUBB. NOR.
DUBB. HIGH
CCRS
CRLS
TRACK NO.
REPEAT
P.C.
SINGLE
TOTAL
TIME
CN2
TEST MODE
D1
R1 4.7K
R2 4.7K
R3 4.7K
R4 4.7K
R5 10K
R6 10K
R7 10K
R8 10K
R9 2.7K
R15 2.7K
C4 0.01
IC1
μ-COM
(BOTTOM VIEW)
RESET
Vload
Vpre
R10 3.9K
C1 0.01
D6
IC6
DIGITAL SIGNAL PROCESSOR
R101 100
CN1
CN4
CN5
CN6
CN10
A
B
C
DOLBY
S1 D114
S2 D115
S3 D116
S4 D117
S5 D118
S6 D119
S7 D120
S8 A/B D121
S9 DIRECN D122
S10 DUB D123
S11 Hi-DUB D124
S12 CRLS D125
S13 CCRS D126
(KR0)
(KR1)
(KR2)
DECK CONTROL
D131 S18
D132 S16
S17
S15
D130 S14
CD CONTROL
SIGNAL LINE
GND LINE
+B LINE
-B LINE


2SA954 2SC2878
2SA992 2SC3246
2SC1845 2SC3940A
2SA1175
2SC2785
DTA124ES 2SA933S
DTC124ES 2SC1740S
UN4112
DTC124EK
2SB1308
2SC3944A
2SD1944
2SD2061
UN4212
NJM4565D
XRU4052B
TC4052BP
TA8125S
NJM4565M
TC74HCU04AF
SM5871S
CXD2500AQ


CXA1372Q
M5237ML
TA8409F
S-80740AL
HA12157NT

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2/2

X-B3

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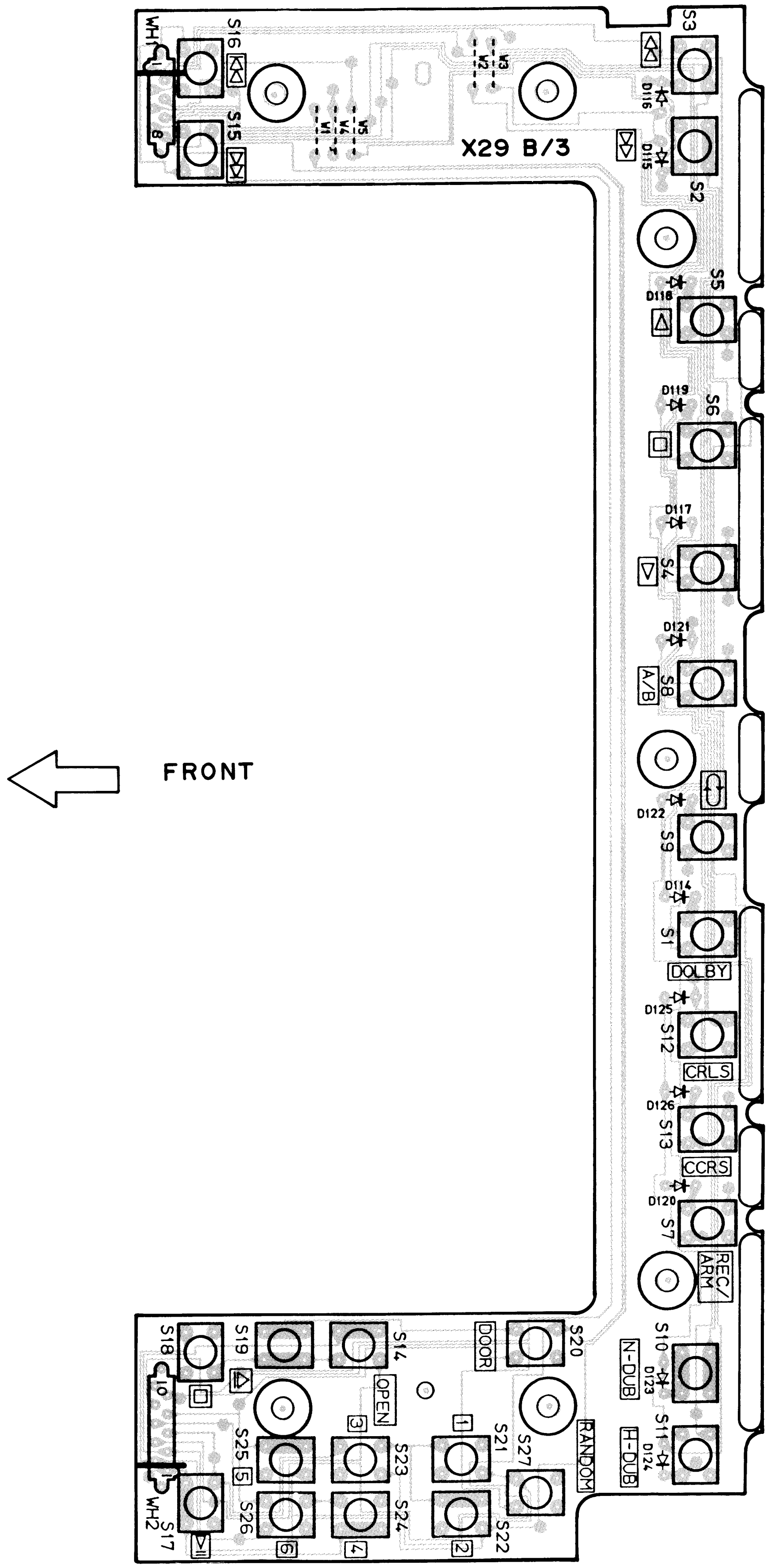
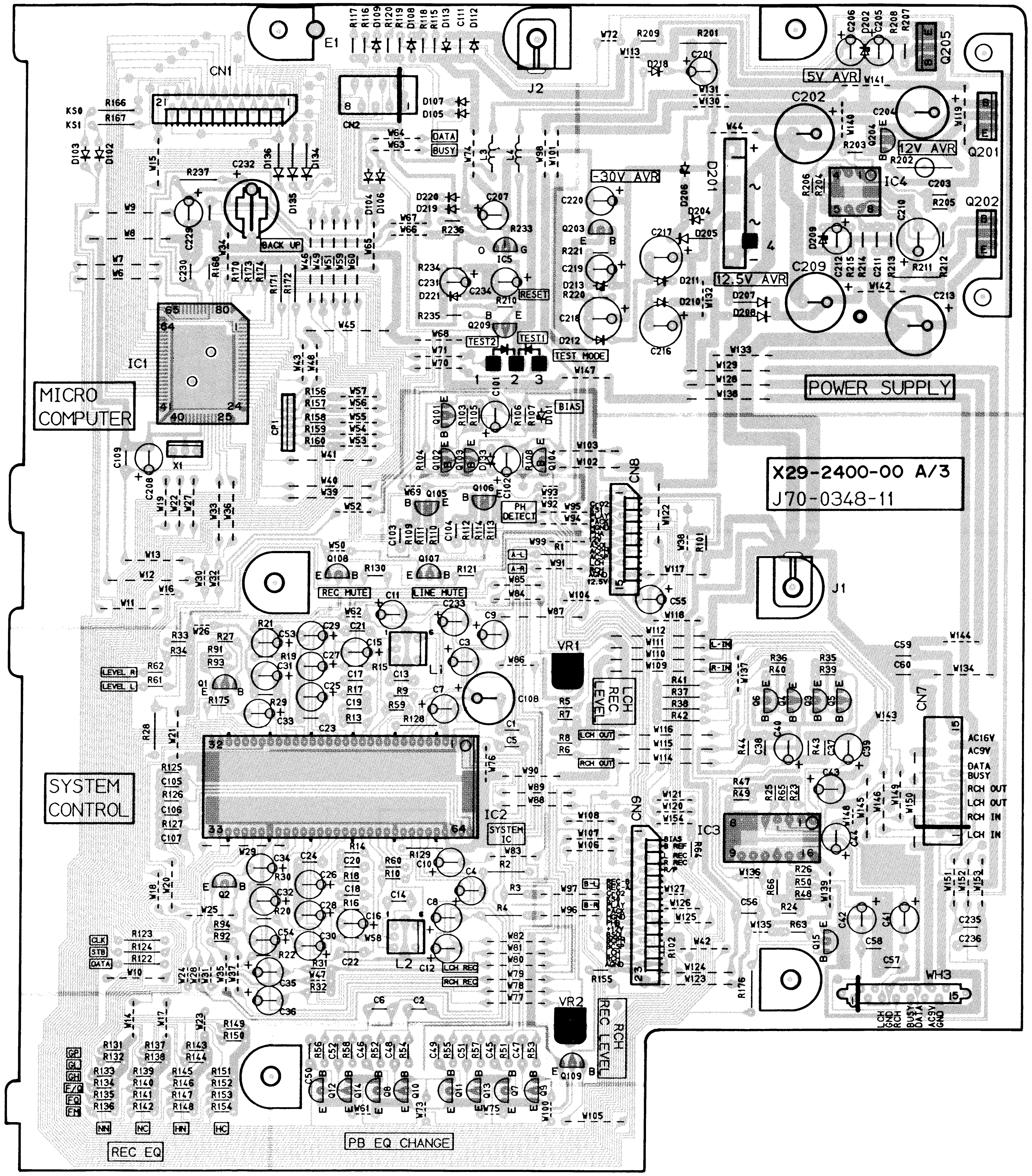
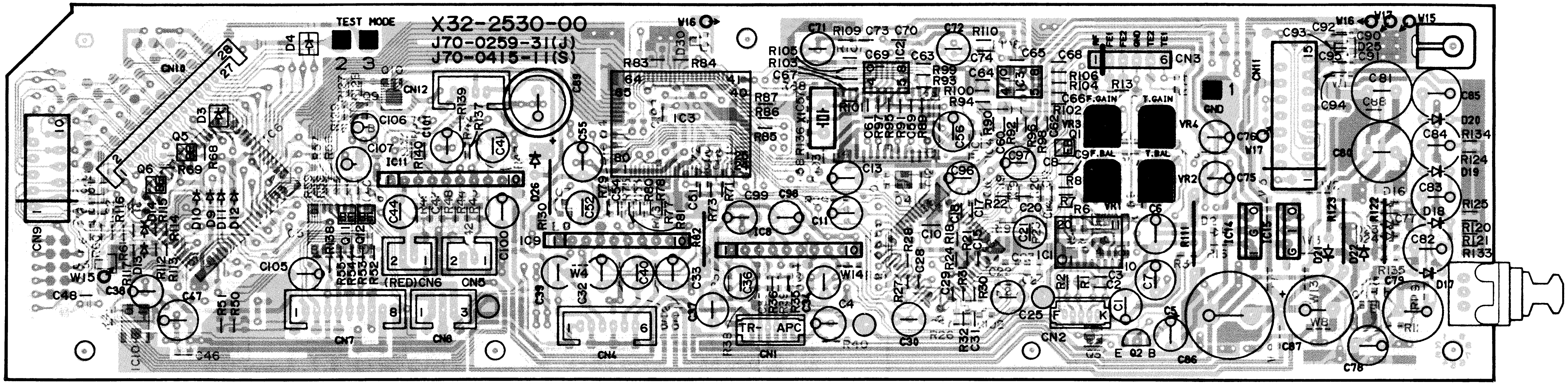
PC BOARD (Component side view) CONTROL UNIT (X29-2400-00)


X29 B/3
FRONT
S1
S2
S3
S4
S5
S6
S7
S8
S9
S10
S11
S12
S13
S14
S15
S16
S17
S18
S19
S20
S21
S22
S23
S24
S25
S26
S27
DOLBY
CRLS
CCRS
REC/ARM
A/B
DOOR
OPEN
N-DUB
H-DUB
RANDOM
WH1
WH2

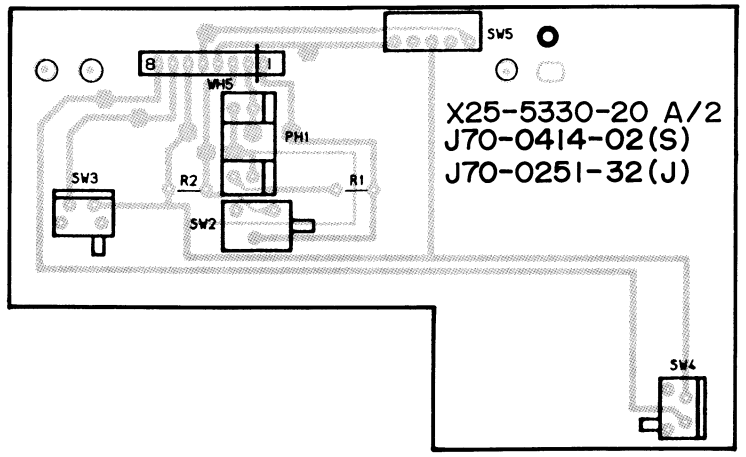

MICRO COMPUTER
SYSTEM CONTROL
POWER SUPPLY
X29-2400-00 A/3
J70-0348-11
IC1
IC2
SYSTEM IC
IC3
IC4
IC5
CN1
CN2
CN7
CN8
CN9
J1
J2
E1
VR1
VR2
LCH REC LEVEL
RCH REC LEVEL
5V AVR
12V AVR
-30V AVR
12.5V AVR
BACK UP
RESET
TEST1
TEST2
TEST MODE
BIAS
PH DETECT
REC MUTE
LINE MUTE
LCH OUT
RCH OUT
LCH REC
RCH REC
REC EQ
PB EQ CHANGE
AC16V
AC9V
DATA
BUSY
RCH OUT
LCH OUT
RCH IN
LCH IN
WH3
C202
C209
Q201
Q202
Q205
D201

Refer to the schematic diagram for the values of resistors and capacitors.

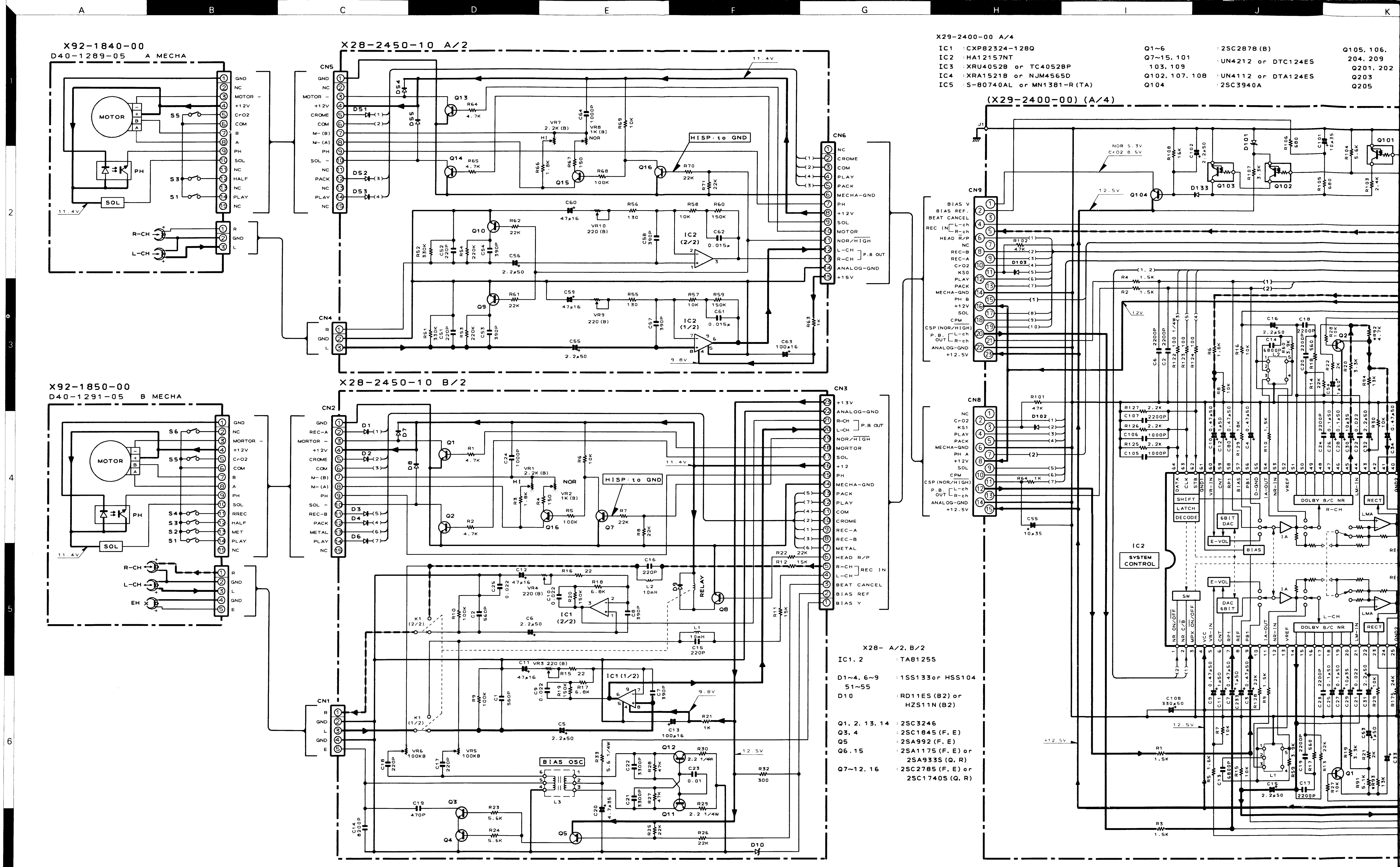
PC BOARD (Component side view) SIGNAL PROCESSOR UNIT (X32-2530-00)


TEST MODE
X32-2530-00
J70-0259-31(J)
J70-0415-11(S)
IC3
IC8
IC9
IC11
IC13
CN1
CN2
CN3
CN4
CN5
CN6
CN7
CN8
CN9
CN10
CN11
CN12
(RED)CN6
TR- APC
F.GAIN
T.GAIN
F.BAL
T.BAL
VR1
VR2
VR3
VR4
GND
E Q2 B

ELECTRIC UNIT (X25-5330-20)


X25-5330-20 A/2
J70-0414-02(S)
J70-0251-32(J)
SW5
SW3
SW2
SW4
WH5
PH1
R1
R2
8
1

Refer to the schematic diagram for the values of resistors and capacitors.


A
B
C
D
E
F
G
H
I
J
K
1
2
3
4
5
6
7
X92-1840-00
D40-1289-05 A MECHA
MOTOR
PH
SOL
S5
S3
S1
R-CH
L-CH
X28-2450-10 A/2
CN5
CN6
CN4
HISP: to GND
IC2 (2/2)
IC2 (1/2)
X92-1850-00
D40-1291-05 B MECHA
S6
S4
S2
EH
X28-2450-10 B/2
CN2
CN3
CN1
RELAY
IC1 (2/2)
IC1 (1/2)
BIAS OSC
(X29-2400-00) (A/4)
CN9
CN8
IC2
SYSTEM CONTROL
DOLBY B/C NR
R-CH
L-CH
E-VOL
6BIT DAC
BIAS
SHIFT
LATCH
DECODE
SW
RECT
LMA
11.4V
12.5V
9.8V
NOR 5.3V
CrO2 8.5V

X29-2400-00 A/4

IC1	:CXP82324-128Q	Q1~6	:2SC2878(B)	Q105, 106, 204, 209
IC2	:HA12157NT	Q7~15, 101 103, 109	:UN4212 or DTC124ES	Q201, 202
IC3	:XRU4052B or TC40528P			
IC4	:XRA1521B or NJM4565D	Q102, 107, 108	:UN4112 or DTA124ES	Q203
IC5	:S-80740AL or MN1381-R(TA)	Q104	:2SC3940A	Q205

X28- A/2, B/2

IC1, 2	:TA8125S
D1~4, 6~9 51~55	:1SS133or HSS104
D10	:RD11ES(B2) or HZS11N(B2)
Q1, 2, 13, 14	:2SC3246
Q3, 4	:2SC1845(F, E)
Q5	:2SA992(F, E)
Q6.15	:2SA1175(F, E) or 2SA933S(Q, R)
Q7~12, 16	:2SC2785(F, E) or 2SC1740S(Q, R)

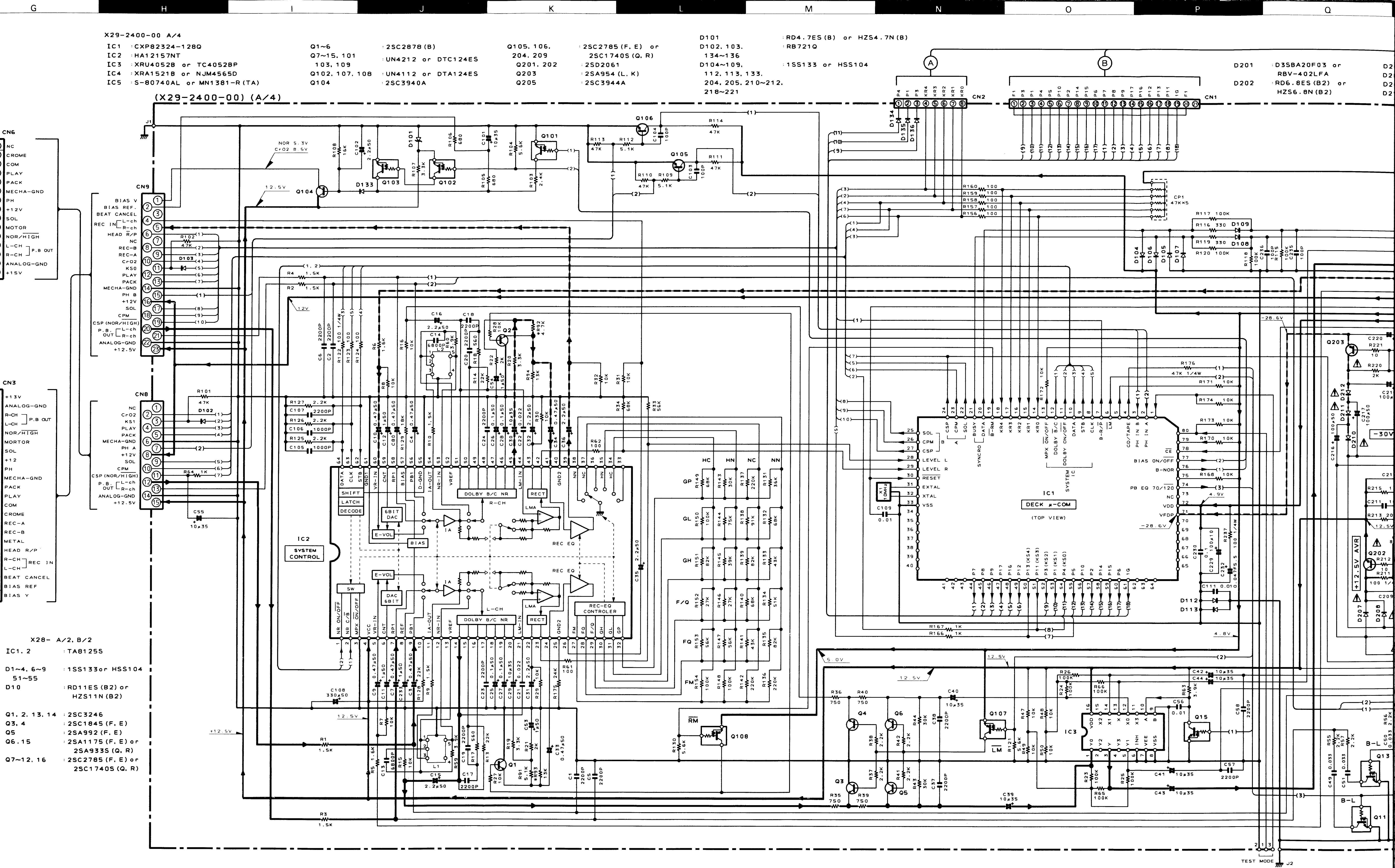
X29-2400-00 A/4

IC1	:CXP82324-128Q	Q1~6	:2SC2878(B)	Q105, 106, 204, 209	:2SC2785(F, E) or 2SC1740S(Q, R)	D101	:RD4.7ES(B) or HZS4.7N(B)
IC2	:HA12157NT	Q7~15, 101 103, 109	:UN4212 or DTC124ES	Q201, 202	:2SD2061	D102, 103, 134~136	:RB721Q
IC3	:XRU4052B or TC4052BP	Q102, 107, 108	:UN4112 or DTA124ES	Q203	:2SA954(L, K)	D104~109, 112, 113, 133, 204, 205, 210~212, 218~221	:1SS133 or HSS104
IC4	:XRA1521B or NJM4565D	Q104	:2SC3940A	Q205	:2SC3944A		
IC5	:S-80740AL or MN1381-R(TA)						

D201	:D3SBA20F03 or RBV-402LFA
D202	:RD6.8ES(B2) or HZS6.8N(B2)

X28- A/2, B/2

IC1, 2	:TA8125S
D1~4, 6~9 51~55	:1SS133or HSS104
D10	:RD11ES(B2) or HZS11N(B2)
Q1, 2, 13, 14	:2SC3246
Q3, 4	:2SC1845(F, E)
Q5	:2SA992(F, E)
Q6.15	:2SA1175(F, E)or 2SA933S(Q, R)
Q7~12, 16	:2SC2785(F, E)or 2SC1740S(Q, R)



G
H
I
J
K
L
M
N
O
P
Q
(X29-2400-00) (A/4)
CN6
CN9
CN3
CN8
CN1
CN2
NC
CROME
COM
PLAY
PACK
MECHA-GND
PH
+12V
SOL
MOTOR
NOR/HIGH
L-CH
R-CH
P.B OUT
ANALOG-GND
+15V
BIAS V
BIAS REF.
BEAT CANCEL
REC IN
HEAD R/P
REC-B
REC-A
CrO2
KS0
PH B
CPM
CSP (NOR/HIGH)
P.B. OUT
+12.5V
+13V
MORTOR
METAL
BIAS REF
BIAS Y
NOR 5.3V
CrO2 8.5V
12.5V
IC1
DECK μ-COM
(TOP VIEW)
IC2
SYSTEM CONTROL
DOLBY B/C NR
R-CH
L-CH
REC EQ
REC-EQ CONTROLER
RECT
LMA
E-VOL
6BIT DAC
BIAS
SHIFT
LATCH
DECODE
SW
IC3
Q101
Q102
Q103
Q104
Q105
Q106
Q107
Q108
Q1
Q2
Q3
Q4
Q5
Q6
Q11
Q13
Q15
Q202
Q203
+12.5V AVR
-30V
-28.6V
4.9V
4.8V
5.0V
CP1 47K×5
X1 10MHz
B-L
TEST MODE
J1
J2

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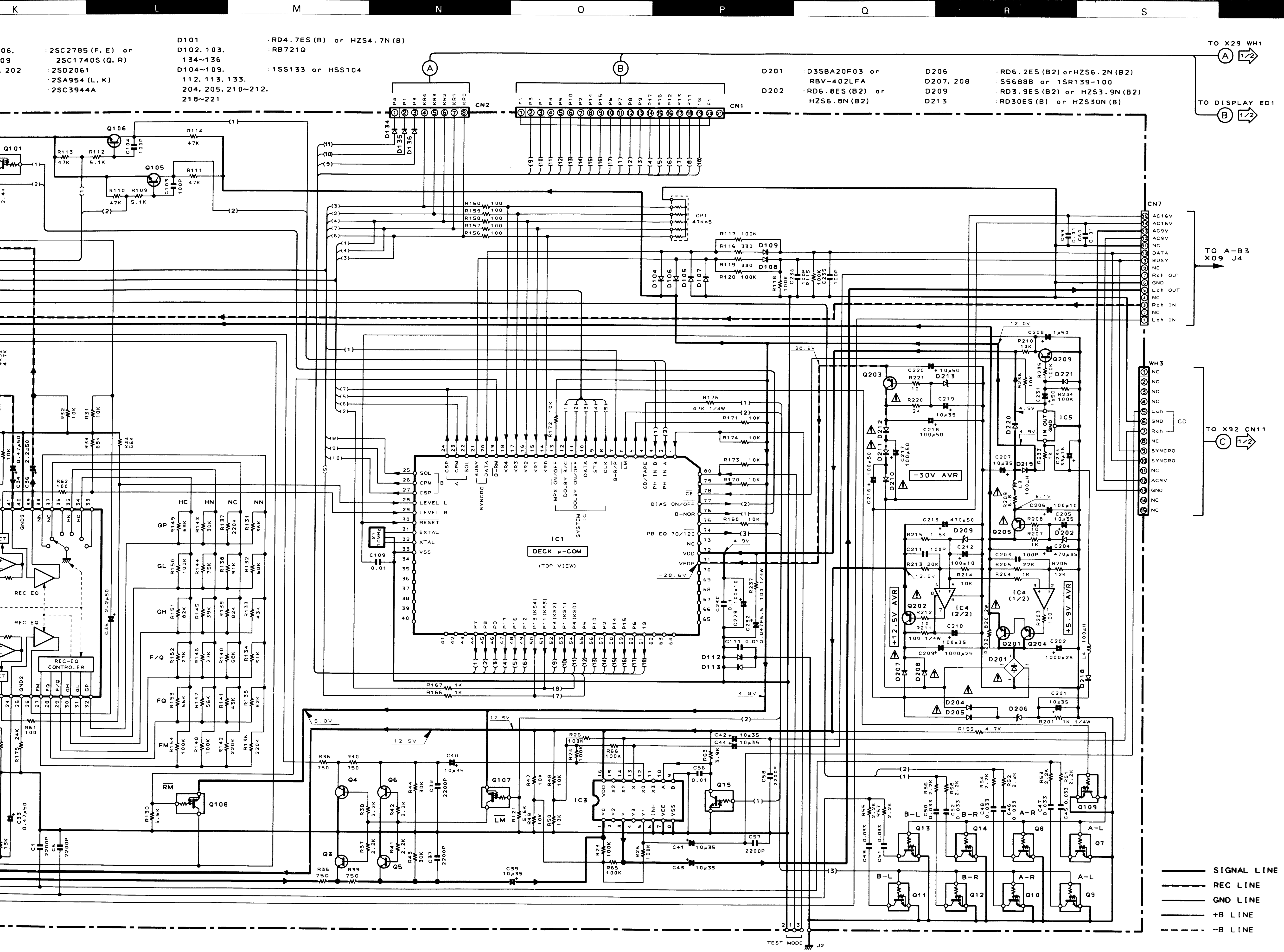
06. : 2SC2785 (F, E) or 2SC1740S (Q, R)
09 : 2SD2061
. 202 : 2SA954 (L, K)
: 2SC3944A

D101 : RD4.7ES (B) or HZS4.7N (B)
D102, 103, 134~136 : RB721Q
D104~109, 112, 113, 133, 204, 205, 210~212, 218~221 : 1SS133 or HSS104

D201 : D3SBA20F03 or RBV-402LFA
D202 : RD6.8ES (B2) or HZS6.8N (B2)
D206 : RD6.2ES (B2) or HZS6.2N (B2)
D207, 208 : S5688B or 1SR139-100
D209 : RD3.9ES (B2) or HZS3.9N (B2)
D213 : RD30ES (B) or HZS30N (B)


K
L
M
N
O
P
Q
R
S
T
U
TO X29 WH1
TO DISPLAY ED1
TO A-B3 X09 J4
TO X92 CN11
CN1
CN2
CN7
WH3
CP1 47K×5
IC1
DECK μ-COM
(TOP VIEW)
SYSTEM IC
IC3
IC4 (1/2)
IC4 (2/2)
IC5
-30V AVR
+12.5V AVR
+5.9V AVR
REC EQ
REC-EQ CONTROLER
SOL
CPM
CSP
LEVEL L
LEVEL R
RESET
EXTAL
XTAL
VSS
BUSY
DATA
B-RM
SYNCRO
MPX ON/OFF
DOLBY B/C
DOLBY ON/OFF
STB
CLK
B-R/P
LM
CD/TAPE
PH IN B
PH IN A
CE
BIAS ON/OFF
B-NOR
PB EQ 70/120
NC
VDD
VFDP
AC16V
AC9V
Rch OUT
GND
Lch OUT
Rch IN
Lch IN
Lch
Rch
CD
SYNCRO
12.0V
-28.6V
4.9V
6.1V
-28.6V
4.8V
5.0V
12.5V
RM
LM
TEST MODE
J2
B-L
B-R
A-R
A-L
SIGNAL LINE
REC LINE
GND LINE
+B LINE
-B LINE

DC voltages are as measured with a high impedance voltmeter with a cassette loaded at playback mode. Values may vary slightly due to variations between individual instruments or/and units. Bias circuit DC voltages are as measured while in the record mode.

Les tensions c.c. doivent être mesurees avec un voltmètre à haute impédance, une cassette étant insérée en mode du lecture. Les valeurs peuvent différer légèrement du fait des variations inherentes aux appareils et aux instruments de mesure individuels.
Les tensions c.c. du circuit de polarité doivent être mesurées, l'appareil étant en mode d'enregistrement.

Die angegebenen Gleichspannungswerte wurden bei eingesetzter Cassette in der Wiedergabe mit einem hochomigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig. Die angegebenen Gleichspannungswerte der Vormagnetisierungsschaltung wurden in der Aufnahme-Betriebsart gemessen.

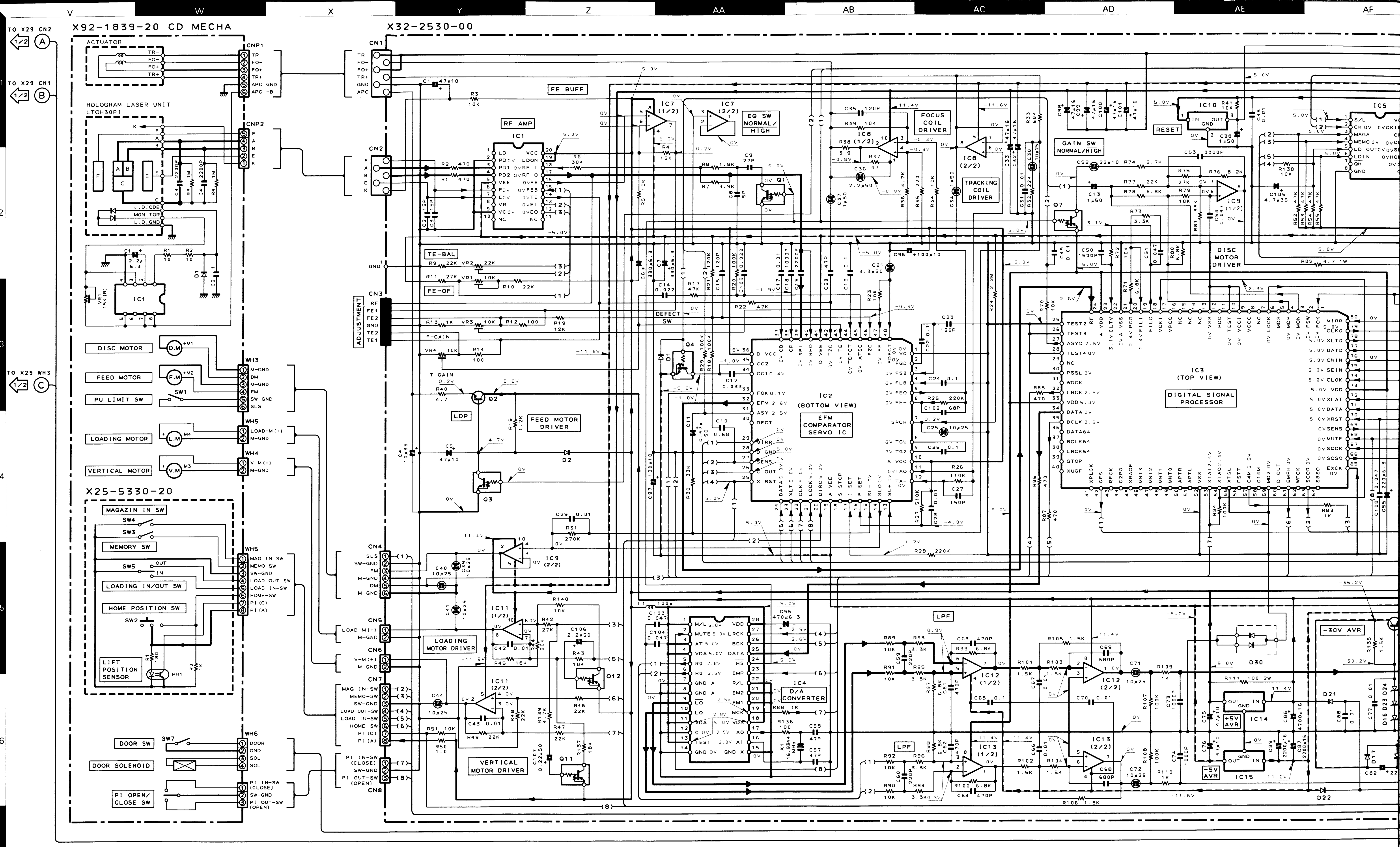
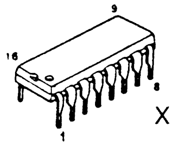
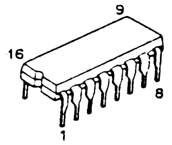
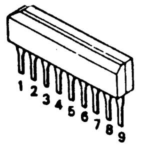
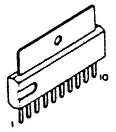
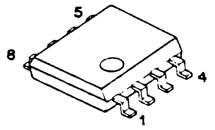
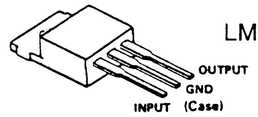
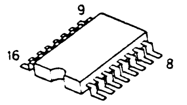
CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

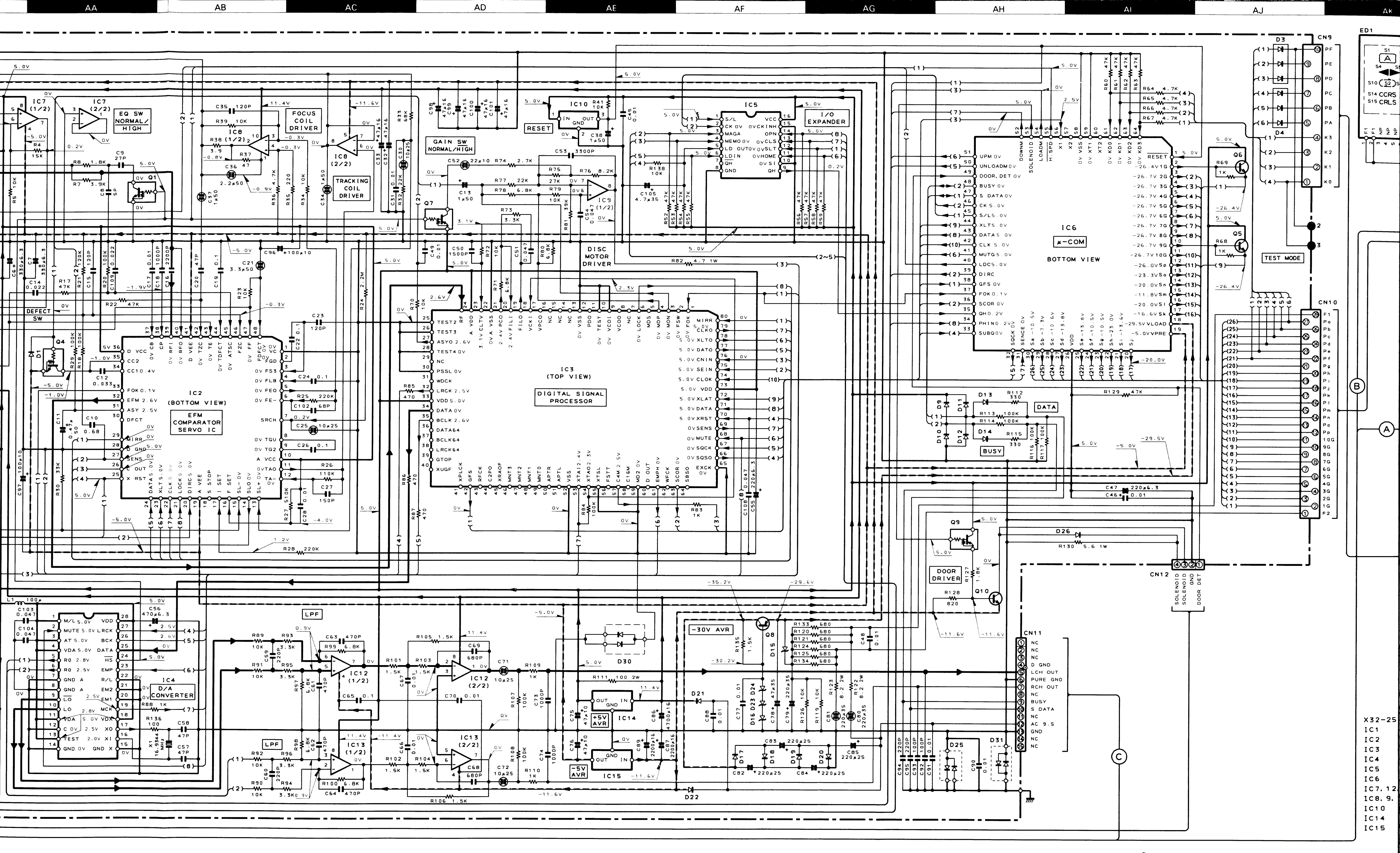
1/2

X-MB3

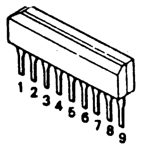
KENWOOD

Y39-1040-11

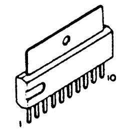

V
W
X
Y
Z
AA
AB
AC
AD
AE
AF
TO X29 CN2
TO X29 CN1
TO X29 WH3
X92-1839-20 CD MECHA
X32-2530-00
ACTUATOR
CNP1
TR-
FO-
FO+
TR+
APC GND
APC +B
HOLOGRAM LASER UNIT
LTOH30P1
CNP2
L.DIODE
MONITOR
L.D.GND
IC1
VR1 15K(B)
DISC MOTOR
FEED MOTOR
PU LIMIT SW
LOADING MOTOR
VERTICAL MOTOR
WH3
WH5
WH4
M-GND
DM
FM
SW-GND
SLS
LOAD-M(+)
V-M(+)
X25-5330-20
MAGAZIN IN SW
MEMORY SW
LOADING IN/OUT SW
HOME POSITION SW
LIFT POSITION SENSOR
MAG IN SW
MEMO-SW
LOAD OUT-SW
LOAD IN-SW
HOME-SW
PI (C)
PI (A)
DOOR SW
DOOR SOLENOID
PI OPEN/CLOSE SW
WH6
DOOR
SOL
PI IN-SW (CLOSE)
PI OUT-SW (OPEN)
CN1
CN2
CN3
CN4
CN5
CN6
CN7
CN8
ADJUSTMENT
RF
FE1
FE2
TE2
TE1
RF AMP
FE BUFF
TE-BAL
FE-OF
F-GAIN
T-GAIN
LDP
FEED MOTOR DRIVER
LOADING MOTOR DRIVER
VERTICAL MOTOR DRIVER
DEFECT SW
EQ SW NORMAL/HIGH
FOCUS COIL DRIVER
TRACKING COIL DRIVER
GAIN SW NORMAL/HIGH
RESET
DISC MOTOR DRIVER
IC2
(BOTTOM VIEW)
EFM COMPARATOR SERVO IC
IC3
(TOP VIEW)
DIGITAL SIGNAL PROCESSOR
IC4
D/A CONVERTER
LPF
IC5
IC7 (1/2)
IC7 (2/2)
IC8 (1/2)
IC8 (2/2)
IC9 (1/2)
IC9 (2/2)
IC10
IC11 (1/2)
IC11 (2/2)
IC12 (1/2)
IC12 (2/2)
IC13 (1/2)
IC13 (2/2)
IC14
IC15
+5V AVR
-5V AVR
-30V AVR
D30
X1 16.9344 MHz

XRU4052B

TC4052BP

TA8125S

LA6510
TA8410AK

NJM4565M

OUTPUT
GND
INPUT (Case)
LM2940CT-5.0

TC74HC165AF


AA
AB
AC
AD
AE
AF
AG
AH
AI
AJ
AK
IC7 (1/2)
IC7 (2/2)
EQ SW NORMAL/HIGH
DEFECT SW
IC8 (1/2)
IC8 (2/2)
FOCUS COIL DRIVER
TRACKING COIL DRIVER
GAIN SW NORMAL/HIGH
IC10
RESET
IC9 (1/2)
DISC MOTOR DRIVER
IC5
I/O EXPANDER
IC6
μ-COM
BOTTOM VIEW
IC2 (BOTTOM VIEW)
EFM COMPARATOR SERVO IC
IC3 (TOP VIEW)
DIGITAL SIGNAL PROCESSOR
Q1
Q4
Q5
Q6
Q7
Q8
Q9
Q10
D1
D3
D4
D9
D10
D11
D12
D13
D14
DATA
BUSY
D26
DOOR DRIVER
CN9
CN10
CN11
CN12
ED1
TEST MODE
SOLENOID
SOLENOID
GND
DOOR DET
IC4
D/A CONVERTER
LPF
LPF
IC12 (1/2)
IC12 (2/2)
IC13 (1/2)
IC13 (2/2)
IC14
+5V AVR
IC15
-5V AVR
-30V AVR
D30
D21
D22
D25
D31
NC
NC
NC
D GND
LCH OUT
PURE GND
RCH OUT
NC
BUSY
S DATA
NC
AC 9.5
GND
NC
NC
X32-25
IC1
IC2
IC3
IC4
IC5
IC6
IC7, 12,
IC8, 9,
IC10
IC14
IC15
A
B
C

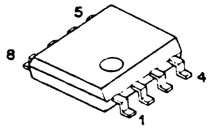
C4052BP



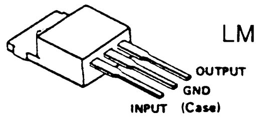
TA8125S



LA6510
TA8410AK

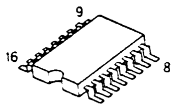


NJM4565M



LM2940CT-5.0

OUTPUT
GND
INPUT (Case)



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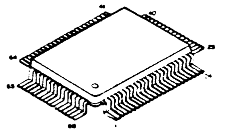
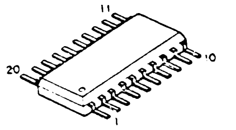
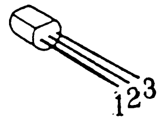


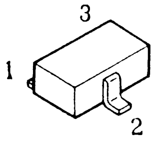
CXD2500BQ



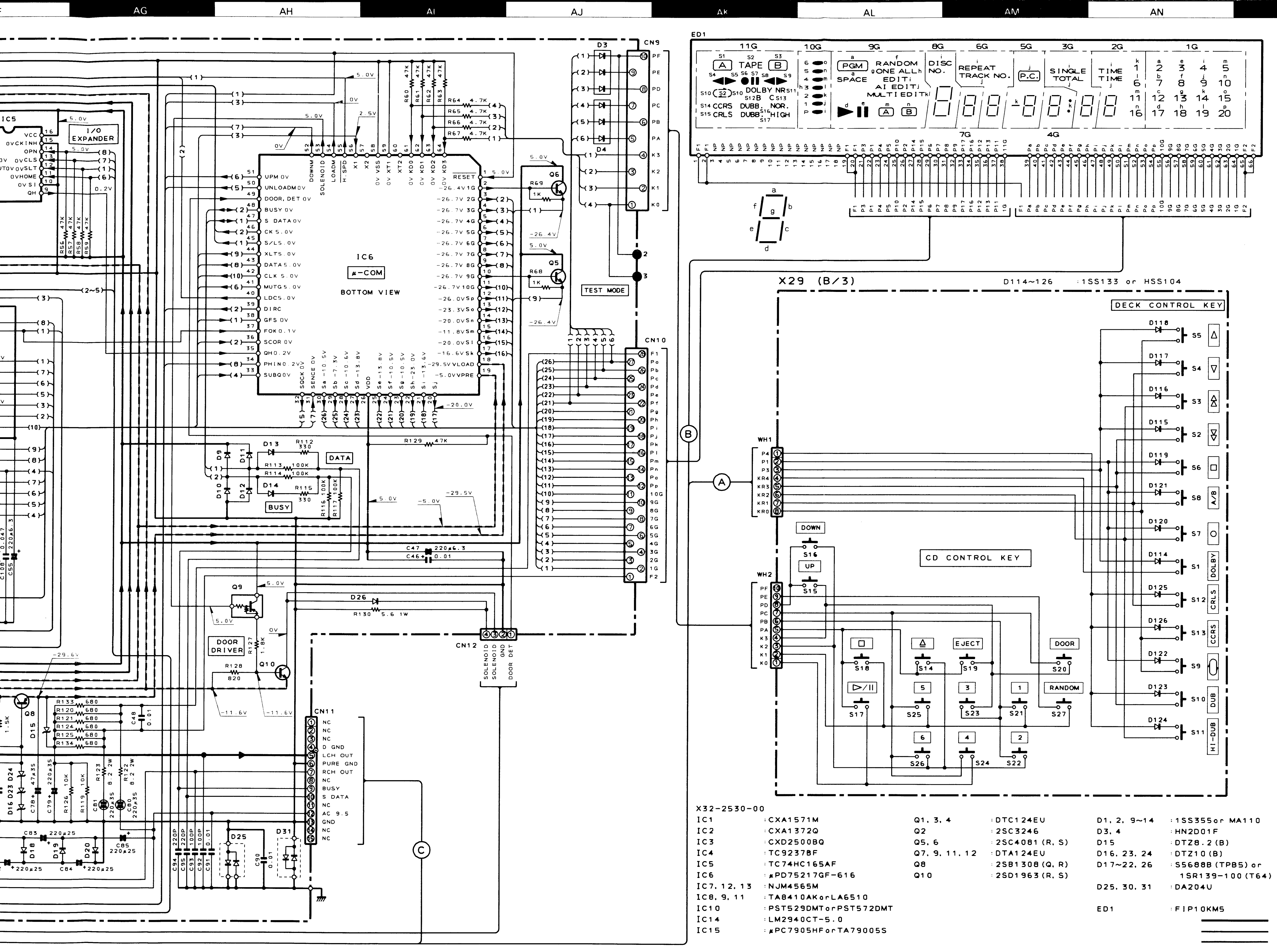
CXA1571M



S-80740AL



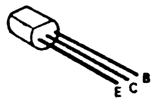
PST529DMT
PST572DMT


AG
AH
AI
AJ
AK
AL
AM
AN
AO
ED1
11G
10G
9G
8G
6G
5G
3G
2G
1G
7G
4G
TAPE
PGM
SPACE
RANDOM
ONE ALL
EDIT
AI EDIT
MULTI EDIT
DISC NO.
REPEAT
TRACK NO.
P.C.
SINGLE
TOTAL
TIME
TIME
DOLBY NR
DUBB
NOR.
HIGH
CCRS
CRLS
CN9
D3
D4
TEST MODE
Q6
Q5
R69 1K
R68 1K
IC5
I/O EXPANDER
IC6
μ-COM
BOTTOM VIEW
RESET
CN10
D13
R112 330
DATA
R113 100K
R114 100K
D14
R115 330
BUSY
R129 4.7K
C47 220μ6.3
C464 0.01
Q9
D26
R130 5.6 1W
DOOR DRIVER
R127 1.8K
R128 820
Q10
CN12
SOLENOID
SOLENOID
GND
DOOR DET
CN11
NC
NC
NC
D GND
LCH OUT
PURE GND
RCH OUT
NC
BUSY
S DATA
NC
AC 9.5
GND
NC
NC
D25
D31
Q8
D15
X29 (B/3)
D114~126 : 1SS133 or HSS104
DECK CONTROL KEY
WH1
WH2
CD CONTROL KEY
DOWN
UP
EJECT
DOOR
RANDOM
S1 DOLBY
S12 CRLS
S13 CCRS
S10 DUB
S11 HI-DUB
A/B

X32-2530-00

IC1	:CXA1571M	Q1, 3, 4	:DTC124EU	D1, 2, 9~14	:1SS355or MA110
IC2	:CXA1372Q	Q2	:2SC3246	D3, 4	:HN2D01F
IC3	:CXD2500BQ	Q5, 6	:2SC4081 (R, S)	D15	:DTZ8.2(B)
IC4	:TC9237BF	Q7, 9, 11, 12	:DTA124EU	D16, 23, 24	:DTZ10(B)
IC5	:TC74HC165AF	Q8	:2SB1308(Q, R)	D17~22, 26	:S5688B(TPB5)or 1SR139-100(T64)
IC6	:μPD75217GF-616	Q10	:2SD1963(R, S)		
IC7, 12, 13	:NJM4565M			D25, 30, 31	:DA204U
IC8, 9, 11	:TA8410AKorLA6510				
IC10	:PST529DMTorPST572DMT			ED1	:FIP10KMS
IC14	:LM2940CT-5.0				
IC15	:μPC7905HForTA79005S				

SIGNAL LINE
GND LINE
+B LINE
-B LINE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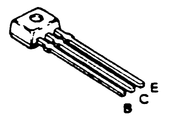
2SA992
2SC1845
2SC2878
2SC3246
2SC3940A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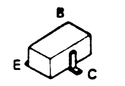
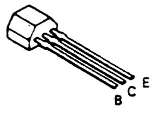
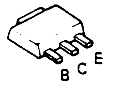
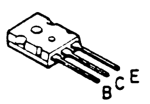
2SC2785


DTA124EU
DTC124EU
2SC4081


DTA124ES
DTC124ES
UN4112
2SA933S
2SC1740S


2SB1308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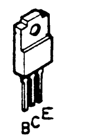
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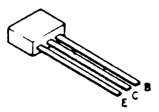
2SD2061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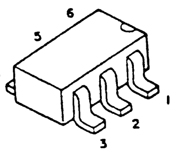
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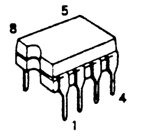
NJM4565D

DC voltages are as measured with a high impedance voltmeter with a cassette loaded at playback mode. Values may vary slightly due to variations between individual instruments or/and units. Bias circuit DC voltages are as measured while in the record mode.

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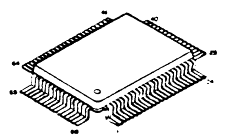
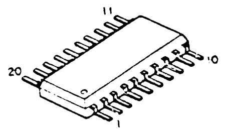
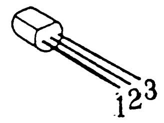

CXD2500BQ


CXA1571M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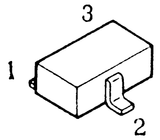
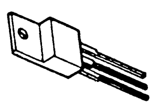
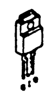
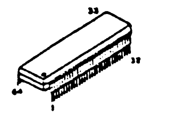
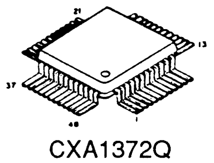

PST529DMT
PST572DMT


TA79005S


UPC7905HF


HA12157NT


CXA1372Q

2/2

X-MB3

KENWOOD

Y39-1040-11

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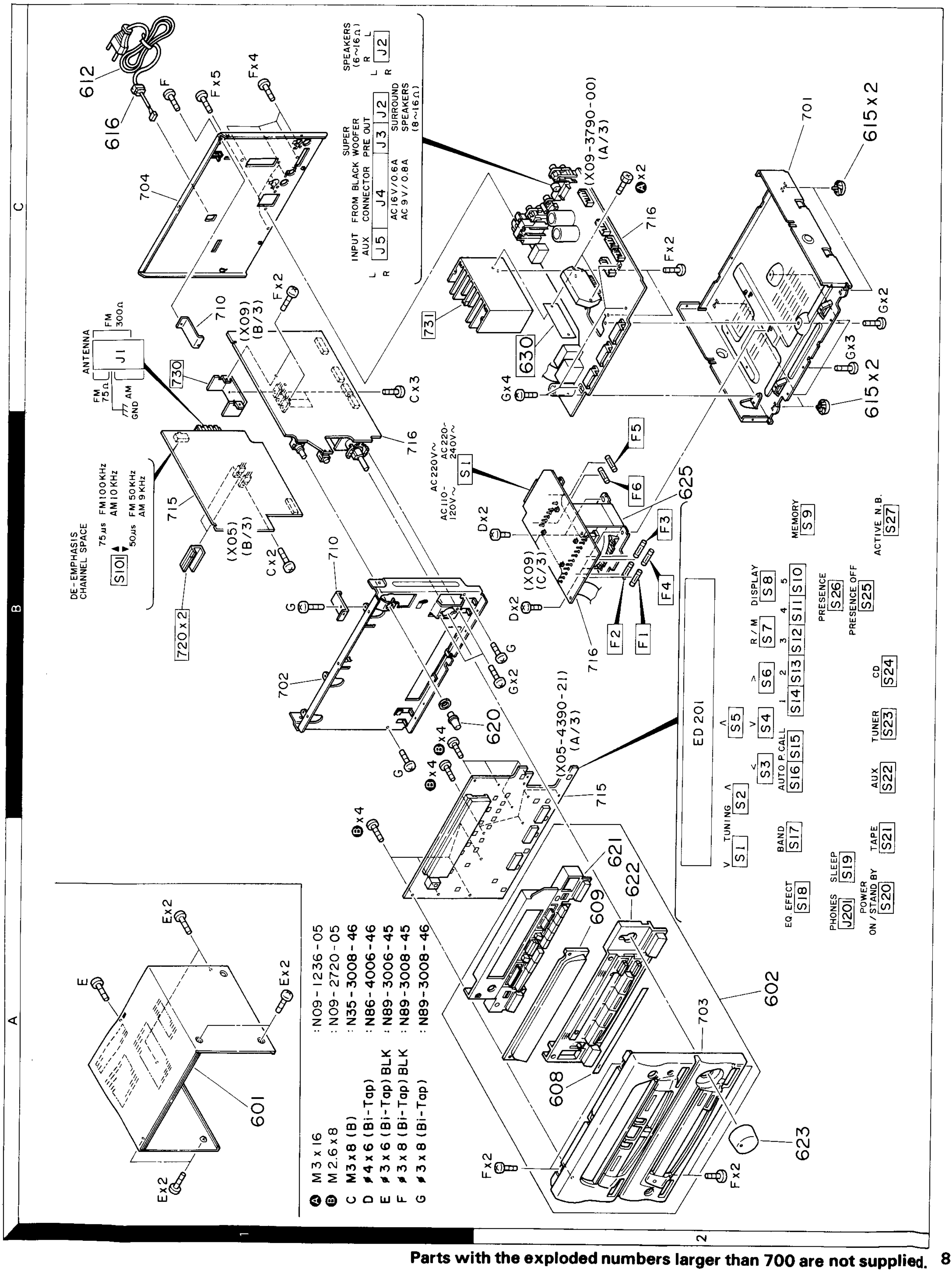
EXPLODED VIEW (UNIT)


612
616
F
Fx5
Fx4
704
SPEAKERS (6~16Ω)
R L
L R
J2
INPUT AUX
J5
L R
FROM BLACK CONNECTOR
J4
AC16V/0.6A
AC9V/0.8A
SUPER WOOFER PRE OUT
J3
SURROUND SPEAKERS (8~16Ω)
J2
(X09-3790-00)
(A/3)
Ax2
701
615x2
716
Fx2
731
630
Gx4
Gx2
Gx3
615x2
ANTENNA
FM 300Ω
J1
FM 75Ω
AM
GND
710
(X09)
(B/3)
Fx2
730
Cx3
716
DE-EMPHASIS CHANNEL SPACE
75μs FM100KHz AM10KHz
50μs FM50KHz AM9KHz
S101
715
(X05)
(B/3)
Cx2
720x2
710
G
702
G
Gx2
620
Bx4
Bx4
G
AC110-120V~
AC220V~
AC220-240V~
S1
F5
F6
625
F3
F4
F2
F1
Dx2
(X09)
(C/3)
Dx2
716
(X05-4390-21)
(A/3)
715
Bx4
ED 201
TUNING
S1
S2
S3
S4
S5
S6
S7
S8
AUTO P.CALL
S16
S15
S14
S13
S12
S11
S10
R/M
DISPLAY
MEMORY
S9
ACTIVE N.B.
S27
PRESENCE
S26
PRESENCE OFF
S25
CD
S24
TUNER
S23
AUX
S22
TAPE
S21
BAND
S17
SLEEP
S19
POWER ON/STANDBY
S20
EQ EFECT
S18
PHONES
J201
621
622
609
602
703
608
623
Fx2
Fx2
601
E
Ex2
Ex2
Ex2
A
B
C
1
2

A	M3 x 16	: N09-1236-05
B	M2.6 x 8	: N09-2720-05
C	M3 x 8 (B)	: N35-3008-46
D	ø4 x 6 (Bi-Tap)	: N86-4006-46
E	ø3 x 6 (Bi-Tap) BLK	: N89-3006-45
F	ø3 x 8 (Bi-Tap) BLK	: N89-3008-45
G	ø3 x 8 (Bi-Tap)	: N89-3008-46

Parts with the exploded numbers larger than 700 are not supplied.

PARTS LIST

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Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
A-B3 (SINGAPORE MADE)						
601	1A	*	A01-3020-01	METALLIC CABINET		
602	2A	*	A60-0388-12	PANEL ASSY	KP	
602	2A	*	A60-0389-12	PANEL ASSY	YMX	
602	2A	*	A60-0390-12	PANEL ASSY	TE	
608	2A	*	B03-2820-03	DRESSING PLATE		
609	2A	*	B10-1961-03	FRONT GLASS		
-			B46-0092-23	WARRANTY CARD	K	
-			B46-0122-23	WARRANTY CARD	E	
-			B46-0143-13	WARRANTY CARD	T	
⚠ 612	1C		E30-2592-15	AC POWER CORD	ME	
⚠ 612	1C		E30-2605-05	AC POWER CORD	Y	
⚠ 612	1C		E30-2650-05	AC POWER CORD	KP	
⚠ 612	1C		E30-2717-05	AC POWER CORD	X	
⚠ 612	1C		E30-2721-05	AC POWER CORD	T	
		*	H50-0579-04	ITEM CARTON CASE	K	
		*	H50-0580-04	ITEM CARTON CASE	TE	
-		*	H10-5450-02	POLYSTYRENE FOAMED FIXTURE	KTE	
-		*	H10-5451-02	POLYSTYRENE FOAMED FIXTURE	KTE	
-			H25-0232-04	PROTECTION BAG (235X350X0.03)	KE	
-			H25-0651-04	PROTECTION BAG (0232 PRINTED)	T	
-			H25-0671-04	PROTECTION BAG		
615	2C		J02-0370-05	FOOT		
⚠ 616	1C		J42-0083-05	POWER CORD BUSHING		
-			J61-0307-05	WIRE BAND		
620	2B		K29-3632-04	KNOB MIC MIXING	YMX	
621	2A	*	K29-5665-02	KNOB GE/TUNER CONTROL		
622	2A	*	K29-5666-02	KNOB AMP INPUT SELECTOR		
623	2A	*	K29-5667-04	KNOB VOLUME		
⚠ 625	2B	*	L07-0658-15	POWER TRANSFORMER	KP	
⚠ 625	2B	*	L07-0659-05	POWER TRANSFORMER	YM	
⚠ 625	2B	*	L07-0660-15	POWER TRANSFORMER	X	
⚠ 625	2B	*	L07-0661-15	POWER TRANSFORMER	T	
⚠ 625	2B	*	L07-0662-15	POWER TRANSFORMER	E	
B	1A,1B		N09-2720-05	TAPTITE SCREW (2.6X8)		
D	2B		N86-4006-46	BINDING HEAD TAPTITE SCREW		
E	1A		N89-3006-45	BINDING HEAD TAPTITE SCREW		
F	1C,2C		N89-3008-45	BINDING HEAD TAPTITE SCREW		
G	1B,2B		N89-3008-46	BINDING HEAD TAPTITE SCREW		
A-B3 (MALAYSIA MADE)						
601	1A	*	A01-3020-01	METALLIC CABINET		
602	2A	*	A60-0388-12	PANEL ASSY		
608	2A	*	B03-2820-03	DRESSING PLATE		
609	2A	*	B10-1961-03	FRONT GLASS		
-			B46-0092-23	WARRANTY CARD	K	
⚠ 612	1C		E30-2650-05	AC POWER CORD		
		*	H50-0582-04	ITEM CARTON CASE	K	
-		*	H10-5452-02	POLYSTYRENE FOAMED FIXTURE	K	
-		*	H10-5453-02	POLYSTYRENE FOAMED FIXTURE	K	
-			H25-0232-04	PROTECTION BAG (235X350X0.03)	K	
-			H25-0671-04	PROTECTION BAG		

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	615	2C		J02-0370-05	FOOT		
⚠	616	1C		J42-0083-05	POWER CORD BUSHING		
	-			J61-0307-05	WIRE BAND		
	621	2A	*	K29-5665-02	KNOB GE/TUNER CONTROL		
	622	2A	*	K29-5666-02	KNOB AMP INPUT SELECTOR		
	623	2A	*	K29-5667-04	KNOB VOLUME		
⚠	625	2B	*	L07-0658-15	POWER TRANSFORMER		
	B	1A,1B		N09-2720-05	TAPTITE SCREW (2.6X8)		
	D	2B		N86-4006-46	BINDING HEAD TAPTITE SCREW		
	E	1A		N89-3006-45	BINDING HEAD TAPTITE SCREW		
	F	1C,2C		N89-3008-45	BINDING HEAD TAPTITE SCREW		
	G	1B,2B		N89-3008-46	BINDING HEAD TAPTITE SCREW		
	TUNER UNIT (X05-4390-11:K,P ; 0-21:Y,M ; 0-71:X ; 2-71:T,E)						
	D236			B30-1291-05	LED(LN21CPSLX(V)-(TA4))		
	C1 ,2			CK45FF1H103Z	CERAMIC 0.010UF Z		
	C4			CE04LW1C470M	ELECTRO 47UF 16WV		
	C5			CK45FF1H103Z	CERAMIC 0.010UF Z		
	C6			CK45FF1H473Z	CERAMIC 0.047UF Z		
	C7			CE04LW1H010M	ELECTRO 1.0UF 50WV		
	C8			CQ92FM1H682J	MYLAR 6800PF J		
	C9			CK45FF1H103Z	CERAMIC 0.010UF Z		
	C10			CC45FSL1H330J	CERAMIC 33PF J		
	C11			CE04LW1V100M	ELECTRO 10UF 35WV		
	C12			CE04LW1H010M	ELECTRO 1.0UF 50WV		
	C13			CE04LW1HR33M	ELECTRO 0.33UF 50WV		
	C14			CE04LW1H010M	ELECTRO 1.0UF 50WV		
	C15			C91-0729-05	CERAMIC 22PF J		
	C21 ,22		*	CQ92FM1H113J	MYLAR 0.011UF J	YMXTE	
	C21 ,22			CQ92FM1H183J	MYLAR 0.018UF J	KP	
	C23			CE04LW1V100M	ELECTRO 10UF 35WV		
	C25			CE04LW1V100M	ELECTRO 10UF 35WV		
	C27			CK45FF1H473Z	CERAMIC 0.047UF Z		
	C28 -30			CE04LW1V100M	ELECTRO 10UF 35WV		
	C31			CE04LW1A470M	ELECTRO 47UF 10WV		
	C32			CK45FF1H103Z	CERAMIC 0.010UF Z		
	C33			CC45FCH1H270J	CERAMIC 27PF J		
	C34			CC45FCH1H220J	CERAMIC 22PF J		
	C36 -38			CK45FB1H471K	CERAMIC 470PF K		
	C39			CE04LW1C470M	ELECTRO 47UF 16WV		
	C40			CQ92FM1H223J	MYLAR 0.022UF J		
	C41			CE04LW1H010M	ELECTRO 1.0UF 50WV		
	C42 ,43			CK45FF1H103Z	CERAMIC 0.010UF Z		
	C51			CE04LW1H010M	ELECTRO 1.0UF 50WV		
	C52			CE04LW1C470M	ELECTRO 47UF 16WV		
	C55			CK45FF1H103Z	CERAMIC 0.010UF Z		
	C61			CK45FF1H473Z	CERAMIC 0.047UF Z		
	C62			CK45FF1H103Z	CERAMIC 0.010UF Z		
	C65			CE04LW1A101M	ELECTRO 100UF 10WV		
	C66			CK45FF1H103Z	CERAMIC 0.010UF Z		
	C71			CE04LW1V100M	ELECTRO 10UF 35WV		
	C72			CE04LW1C470M	ELECTRO 47UF 16WV		
	C107			CK45FF1H473Z	CERAMIC 0.047UF Z		
	C112			C91-0747-05	CERAMIC 150PF K		

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C113			CK45FF1H223Z	CERAMIC 0.022UF Z		
C114			CK45FF1H103Z	CERAMIC 0.010UF Z	YM	
C135,136			CQ92FM1H562J	MYLAR 5600PF J		
C182			CC45FSL1H150J	CERAMIC 15PF J		
C201			CE04LW1A470M	ELECTRO 47UF 10WV		
C202			C90-1826-05	BACKUP 0.047F 5.5WV		
C203,204			CE04LW1A101M	ELECTRO 100UF 10WV		
C205			C90-3215-05	ELECTRO 220UF 6.3WV		
C206,207			C91-0769-05	CERAMIC 0.01UF K		
C208			C90-3244-05	ELECTRO 10UF 35WV		
C209			CK45FF1H103Z	CERAMIC 0.010UF Z		
C210			C90-3214-05	ELECTRO 100UF 6.3WV		
C211			CQ92FM1H102J	MYLAR 1000PF J		
C212			CK45FF1H103Z	CERAMIC 0.010UF Z		
C213			C90-3214-05	ELECTRO 100UF 6.3WV		
C214			C90-3244-05	ELECTRO 10UF 35WV		
C215			C90-3214-05	ELECTRO 100UF 6.3WV		
C216			C91-0769-05	CERAMIC 0.01UF K		
C217,218			C90-3253-05	ELECTRO 1UF 50WV		
C219,220			CK45FF1H103Z	CERAMIC 0.010UF Z		
C221			CC45FCH1H220J	CERAMIC 22PF J		
C222			CC45FCH1H180J	CERAMIC 18PF J		
C223			C90-3253-05	ELECTRO 1UF 50WV		
C224			C90-3212-05	ELECTRO 47UF 6.3WV		
C225,226			CF92FV1H104J	MF 0.10UF J		
C227			CE04LW1V100M	ELECTRO 10UF 35WV		
C228			CE04DW1H470M	ELECTRO 47UF 50WV		
C229			C90-3258-05	ELECTRO 10UF 50WV		
C230			CE04LW1H100M	ELECTRO 10UF 50WV		
C231,232			CK45FB1H102K	CERAMIC 1000PF K		
C233,234			CK45FF1H103Z	CERAMIC 0.010UF Z		
C235			C91-0769-05	CERAMIC 0.01UF K		
C236			CF92FV1H104J	MF 0.10UF J		
C237			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C238-240			C91-0769-05	CERAMIC 0.01UF K		
J1			E20-0321-05	LOCK TERMINAL BOARD ANTENNA	TE	
J1			E20-0476-05	LOCK TERMINAL BOARD ANTENNA	KPYMX	
J201			E11-0234-05	PHONE JACK HEAD PHONE		
CF1 ,2			L72-0531-05	CERAMIC FILTER	KPYMX	
CF1 ,2			L72-0536-05	CERAMIC FILTER	TE	
L3			L30-0498-05	FM IFT		
L5			L79-0125-05	LC FILTER	TE	
L7			L30-0467-05	AM IFT		
L10			L40-1091-17	SMALL FIXED INDUCTOR		
L103			L39-1309-05	COMBINATION COIL	KPYMX	
L103			L39-1310-05	COMBINATION COIL	TE	
L106			L40-1091-17	SMALL FIXED INDUCTOR		
L201,202			L40-1011-17	SMALL FIXED INDUCTOR(100UH,K)		
X1			L77-1122-05	CRYSTAL RESONATOR 7.200MHz		
X2			L78-0295-05	RESONATOR 456.000kHz		
X201			L78-0602-05	RESONATOR 6.300MHz		
X202			L77-2111-05	CRYSTAL RESONATOR 32.768kHz		
X203			L78-0244-05	RESONATOR 4.000MHz		
C	1B		N35-3008-46	BINDING HEAD MACHINE SCREW		

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CP201			R90-0482-05	MULTI-COMP 100KX4 J 1/6W		
CP202			R90-0852-05	MULTI-COMP 2.2KX4		
CP203			R90-0492-05	MULTI-COMP 100KX8 J 1/6W		
CP204			R90-0500-05	MULTI-COMP 100KX6 J 1/4W		
R11			RD14NB2E470J	RD 47 J 1/4W		
R31			RS14KB3D221J	FL-PROOF RS 220 J 2W		
R38			RD14NB2E221J	RD 220 J 1/4W		
R42			RD14NB2E101J	RD 100 J 1/4W		
R73			RD14NB2E222J	RD 2.2K J 1/4W		
R74			RS14KB3D561J	FL-PROOF RS 560 J 2W		
R111			RD14NB2E101J	RD 100 J 1/4W		
R202,203			RS14KB3D332J	FL-PROOF RS 3.3K J 2W		
R288			RS14KB3A330J	FL-PROOF RS 33 J 1W		
VR1			R12-3686-05	TRIMMING POT.(22K) AM,FM ADJ		
VR2 ,3			R12-1619-05	TRIMMING POT.(4.7K)MPX ADJ		
S1 -27			S40-1064-05	PUSH SWITCH KEY BOARD		
S101			S31-2094-05	SLIDE SWITCH ch SPACE	YM	
D3			HZS5.1N(B2)	ZENER DIODE		
D3			RD5.1ES(B2)	ZENER DIODE		
D5			HSS104	DIODE		
D5			1SS133	DIODE		
D11			HZS13N(B2)	ZENER DIODE		
D11			RD13ES(B2)	ZENER DIODE		
D111,112			HSS104	DIODE		
D111,112			1SS133	DIODE		
D120			HZS3.3N(B2)	ZENER DIODE		
D120			RD3.3ES(B2)	ZENER DIODE		
D201-203			HSS104	DIODE		
D201-203			1SS133	DIODE		
D204			HZS5.6N(B2)	ZENER DIODE		
D204			RD5.6ES(B2)	ZENER DIODE		
D205			HSS104	DIODE	TE	
D205			1SS133	DIODE	TE	
D206			HSS104	DIODE	YM	
D206			1SS133	DIODE	YM	
D206-208			HSS104	DIODE	X	
D206-208			1SS133	DIODE	X	
D207,208			HSS104	DIODE	TE	
D207,208			1SS133	DIODE	TE	
D208			HSS104	DIODE	KP	
D208			1SS133	DIODE	KP	
D208-217			HSS104	DIODE	YM	
D208-217			1SS133	DIODE	YM	
D210-215			HSS104	DIODE	KPTE	
D210-215			1SS133	DIODE	KPTE	
D210-217			HSS104	DIODE	X	
D210-217			1SS133	DIODE	X	
D217			HSS104	DIODE	KPTE	
D217			1SS133	DIODE	KPTE	
D218			HZS7.5S(B)	ZENER DIODE		
D218			RD7.5JS(B)	ZENER DIODE		
D219,220			HZS16N(B2)	ZENER DIODE		
D219,220			RD16ES(B2)	ZENER DIODE		
D221-234			HSS104	DIODE		

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UD-301/351

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D221-234			1SS133	DIODE		
D237			HSS104	DIODE	YMX	
D237			1SS133	DIODE	YMX	
ED201		*	FIP21AMW9Y	INDICATOR TUBE		
IC1			LA1851N	IC(AM,FM TUNER)		
IC2			LC7218	IC(PLL SYNTHESIZER)		
IC201		*	M38173M6-153FP	IC(8BIT MICROPROCESSOR)		
IC202		*	CXP2201AQ	IC(FL TUBE DRIVER)		
IC203			XR-1091ECP	IC(EQUALIZER FILTER)		
IC204			AN780575F	IC(VOLTAGE REGULATOR/+5.75V)		
IC204			TA78057S	IC(VOLTAGE REGULATOR/+5.75V)		
IC205			PST529D	IC(SYSTEM RESET)		
Q1			2SC1923(R,O)	TRANSISTOR		
Q2			2SC1845(F,E)	TRANSISTOR		
Q3			2SC1740S(Q,R)	TRANSISTOR	KPYMX	
Q3			2SC2785(F,E)	TRANSISTOR	KPYMX	
Q3 ,4			2SC1740S(Q,R)	TRANSISTOR	TE	
Q3 ,4			2SC2785(F,E)	TRANSISTOR	TE	
Q5			2SA1175(F,E)	TRANSISTOR		
Q5			2SA933S(Q,R)	TRANSISTOR		
Q7			2SC1740S(Q,R)	TRANSISTOR		
Q7			2SC2785(F,E)	TRANSISTOR		
Q11 ,12			2SD2061	TRANSISTOR		
Q102			2SA1175(F,E)	TRANSISTOR	KPYMX	
Q102			2SA933S(Q,R)	TRANSISTOR	KPYMX	
Q102,103			2SA1175(F,E)	TRANSISTOR	TE	
Q102,103			2SA933S(Q,R)	TRANSISTOR	TE	
Q107,108			2SC1740S(Q,R)	TRANSISTOR	YM	
Q107,108			2SC2785(F,E)	TRANSISTOR	YM	
Q109,110			2SD1302(S,T)	TRANSISTOR		
Q111			2SA1175(F,E)	TRANSISTOR		
Q111			2SA933S(Q,R)	TRANSISTOR		
Q113,114			2SC1740S(Q,R)	TRANSISTOR	TE	
Q113,114			2SC2785(F,E)	TRANSISTOR	TE	
Q116			2SC1740S(Q,R)	TRANSISTOR	TE	
Q116			2SC2785(F,E)	TRANSISTOR	TE	
Q201			2SA1534A(R,S)	TRANSISTOR		
Q202			2SA1175(F,E)	TRANSISTOR	YM	
Q202			2SA933S(Q,R)	TRANSISTOR	YM	
Q203			2SC1740S(Q,R)	TRANSISTOR		
Q203			2SC2785(F,E)	TRANSISTOR		
Q205			2SC1740S(Q,R)	TRANSISTOR		
Q205			2SC2785(F,E)	TRANSISTOR		
A1			W02-1046-05	ELECTRIC CIRCUIT MODULE		
A1			W02-1153-05	ELECTRIC CIRCUIT MODULE		
DT1			W02-1041-15	FM FRONT-END ASSY	TE	
DT1			W02-1042-15	FM FRONT-END ASSY	KPYMX	
AUDIO UNIT (X09-3790-11;K,P ; 0-21:Y,M ; 0-71;X ;2-71;T,E)						
C1 ,2			CC45FSL1H100D	CERAMIC 10PF D		
C3 ,4			CC45FSL1H221J	CERAMIC 220PF J		
C5 ,6			CC45FSL1H100D	CERAMIC 10PF D		
C11 ,12			CC45FSL1H220J	CERAMIC 22PF J	YMX	
C15 -18			CE04LW1V4R7M	ELECTRO 4.7UF 35WV	YMX	
C19 ,20			CC45FSL1H220J	CERAMIC 22PF J		

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C21 ,22			CE04LW1C101M	ELECTRO	100UF	16WV	YMX	
C23 ,24			CE04LW1V4R7M	ELECTRO	4.7UF	35WV	YMX	
C27 ,28			CE04LW1V4R7M	ELECTRO	4.7UF	35WV		
C29 ,30			CC45FSL1H220J	CERAMIC	22PF	J		
C33 ,34			CE04LW1V4R7M	ELECTRO	4.7UF	35WV		
C35 -38			CE04LW1H010M	ELECTRO	1.0UF	50WV		
C39 ,40			CE04LW1V4R7M	ELECTRO	4.7UF	35WV		
C43 ,44			CF92FV1H243J	MF	0.024UF	J		
C45 ,46			CF92FV1H154J	MF	0.15UF	J		
C49 ,50			CE04LW1H010M	ELECTRO	1.0UF	50WV		
C51 ,52			CF92FV1H683J	MF	0.068UF	J		
C53 ,54			CE04LW1V4R7M	ELECTRO	4.7UF	35WV		
C55 ,56			CE04LW1H2R2M	ELECTRO	2.2UF	50WV		
C57 ,58			CK45FB1H471K	CERAMIC	470PF	K		
C59 ,60			CC45FSL1H101J	CERAMIC	100PF	J		
C61 ,62			CE04LW0J221M	ELECTRO	220UF	6.3WV		
C63 -66			CF92FV1H104J	MF	0.10UF	J		
C67 ,68			CQ92FM1H752J	MYLAR	7500PF	J		
C69			C91-0769-05	CERAMIC	0.01UF	K		
C70			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C71 ,72			CC45FSL1H220J	CERAMIC	22PF	J		
C75 -78			CE04LW1V4R7M	ELECTRO	4.7UF	35WV		
C79 -82			CC45FSL1H220J	CERAMIC	22PF	J		
C83 ,84			CE04LW1C220M	ELECTRO	22UF	16WV		
C85 -90			CE04LW1V4R7M	ELECTRO	4.7UF	35WV		
C91 ,92			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C93			CE04LW1V470M	ELECTRO	47UF	35WV		
C95 -97			CE04LW1V4R7M	ELECTRO	4.7UF	35WV		
C99 ,100			CE04LW1V4R7M	ELECTRO	4.7UF	35WV	YMX	
C101,102		*	C90-3488-05	ELECTRO	3300UF	40WV		
C103			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C104			C91-0754-05	CERAMIC	560PF	J		
C105,106			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C107			C91-0754-05	CERAMIC	560PF	J		
C108			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C109			CE04LW1C100M	ELECTRO	10UF	16WV		
C110			CE04KW2A471M	ELECTRO	470UF	100WV		
C111			CE04LW1H221M	ELECTRO	220UF	50WV		
C117,118			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C119			CE04LW1V100M	ELECTRO	10UF	35WV		
C120,121			CF92FV1H104J	MF	0.10UF	J		
C122,123			CE04LW1C100M	ELECTRO	10UF	16WV		
C124			CE04HW1H4R7M	NP-ELEC	4.7UF	50WV		
C125			CE04LW1H101M	ELECTRO	100UF	50WV		
C126			CE04LW1H331M	ELECTRO	330UF	50WV		
C127			CE04LW1H101M	ELECTRO	100UF	50WV		
C128		*	CE04HW0J221M	NP-ELEC	220UF	6.3WV		
C129			C91-0757-05	CERAMIC	1000PF	K		
C130			C91-0769-05	CERAMIC	0.01UF	K		
C131			CE04LW1V4R7M	ELECTRO	4.7UF	35WV	YMX	
C132			CK45FB1H391K	CERAMIC	390PF	K		
C133			CE04LW1H010M	ELECTRO	1.0UF	50WV		
C134			CE04LW1V100M	ELECTRO	10UF	35WV		
C135			CE04LW1H010M	ELECTRO	1.0UF	50WV		
C136			C91-0085-05	CERAMIC	0.022UF	N	YMX	

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UD-301/351

PARTS LIST

⋆ New Parts

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Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti-nation 仕向	Re-marks 備考
C137			C91-0757-05	CERAMIC 1000PF K		
C138			CE04LW1H0R1M	ELECTRO 0.1UF 50WV	YMX	
C139			CC45FSL1H220J	CERAMIC 22PF J	YMX	
C140			CK45FB1H102K	CERAMIC 1000PF K	YMX	
C141			CE04LW1H2R2M	ELECTRO 2.2UF 50WV	YMX	
C142			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C143,144			CE04LW1C100M	ELECTRO 10UF 16WV		
C149			CE04LW1C470M	ELECTRO 47UF 16WV	YMX	
C150,151			CE04LW1H010M	ELECTRO 1.0UF 50WV	YMX	
C152			CF92FV1H104J	MF 0.10UF J	YMX	
C153			CF92FV1H474J	MF 0.47UF J		
C154			CE04LW1C101M	ELECTRO 100UF 16WV		
C155-157			CF92FV1H154J	MF 0.15UF J		
C158			CC45FSL1H330J	CERAMIC 33PF J		
C159,160			CF92FV1H153J	MF 0.015UF J		
C161			CF92FV1H333J	MF 0.033UF J		
C162			CC45FSL1H101J	CERAMIC 100PF J		
C163			CF92FV1H474J	MF 0.47UF J		
C164			CE04LW1A470M	ELECTRO 47UF 10WV		
C165			CE04LW1C221M	ELECTRO 220UF 16WV		
C166			CE04LW1C331M	ELECTRO 330UF 16WV		
C168			CE04LW1C101M	ELECTRO 100UF 16WV		
C169,170			CK45FB1H471K	CERAMIC 470PF K		
C171			CK45FB1H821K	CERAMIC 820PF K		
C172-175			CC45FSL1H101J	CERAMIC 100PF J		
C176-179			C91-0754-05	CERAMIC 560PF J		
C181			CC45FSL1H101J	CERAMIC 100PF J		
C182,183			CE04LW1C100M	ELECTRO 10UF 16WV		
C184			C91-0769-05	CERAMIC 0.01UF K		
C186			CE04LW1H331M	ELECTRO 330UF 50WV		
C187			CK45FF1H103Z	CERAMIC 0.010UF Z		
C190			CE04LW1C101M	ELECTRO 100UF 16WV		
C192-197			CE04LW1C101M	ELECTRO 100UF 16WV		
C198,199			CE04LW1C100M	ELECTRO 10UF 16WV		
C200			CE04LW1E471M	ELECTRO 470UF 25WV		
C201		*	CK45FF1H561K	CERAMIC 560PF K		
J1			E20-0475-05	LOCK TERMINAL BOARD SPEAKERS		
J2			E63-0041-05	PHONO JACK SURROUND OUT	YMX	
J3			E13-0138-05	PHONO JACK SUOER WOOFER		
J4			E08-1509-05	RECTANGULAR RECEPTACLE EXTERNA		
J5			E63-0013-05	PHONO JACK AUX INPUT		
J6			E11-0220-05	MINIATURE PHONE JACK MIC	YMX	
630	2C	*	F20-1371-05	INSULATING SHEET		
⚠ F1 ,2			F05-3121-05	FUSE (SEMKO) (250V T3.15A)	YMXTE	
⚠ F1 ,2			F05-4028-05	FUSE (UL) (125V 4A)	KP	
⚠ F3 -5			F05-1623-05	FUSE (SEMKO) (250V T1.6A)	XTE	
⚠ F3 -6			F05-1623-05	FUSE (SEMKO) (250V T1.6A)	YM	
⚠ F3 ,4			F04-2025-05	FUSE (UL) (250V 2A)	KP	
⚠ F5			F05-4028-05	FUSE (UL) (125V 4A)	KP	
CN17-28			J13-0075-05	FUSE CLIP	YM	
CN17,18			J13-0075-05	FUSE CLIP	KPXTE	
CN21-28			J13-0075-05	FUSE CLIP	KPXTE	

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PARTS LIST

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L1 ,2			L39-0085-05	PHASE COMPENSATION COIL		
A	2C		N09-1236-05	TAPPING SCREW (3X16)		
F	1C,2C		N89-3008-45	BINDING HEAD TAPTITE SCREW		
G	2C		N89-3008-46	BINDING HEAD TAPTITE SCREW		
CP1			R90-0826-05	MULTI-COMP 0.22X2 J 5W		
R89 ,90			RS14KB3D4R7J	FL-PROOF RS 4.7 J 2W		
R93 ,94			RS14KB3D4R7J	FL-PROOF RS 4.7 J 2W		
R107,108			RS14KB3D221J	FL-PROOF RS 220 J 2W		
R110			RS14KB3D331J	FL-PROOF RS 330 J 2W		
R123-128			RD14NB2E4R7J	RD 4.7 J 1/4W		
R201,202			RS14KB3D2R2J	FL-PROOF RS 2.2 J 2W		
R211-213			RD14NB2E5R6J	RD 5.6 J 1/4W		
R228			RS14KB3A101J	FL-PROOF RS 100 J 1W		
R251			RS14KB3A5R6J	FL-PROOF RS 5.6 J 1W		
R254			RS14KB3A101J	FL-PROOF RS 100 J 1W		
R255			RD14NB2E471J	RD 470 J 1/4W	YMX	
R269			RD14NB2E4R7J	RD 4.7 J 1/4W		
R270			RD14NB2E222J	RD 2.2K J 1/4W		
R271			RD14NB2E4R7J	RD 4.7 J 1/4W		
R273			RS14KB3D122J	FL-PROOF RS 1.2K J 2W		
R274,275			RD14NB2E4R7J	RD 4.7 J 1/4W		
R276			RS14KB3A101J	FL-PROOF RS 100 J 1W		
R284,285			RS14KB3D122J	FL-PROOF RS 1.2K J 2W		
R291			R92-0173-05	RC 2.2M M 1/2W	KP	
R292,293			RS14KB3D122J	FL-PROOF RS 1.2K J 2W		
R294			RS14KB3A270J	FL-PROOF RS 27 J 1W		
R305			RS14KB3D271J	FL-PROOF RS 270 J 2W		
VR1		*	R29-5076-05	POTENTIOMETER VOLUME		
VR2		*	R10-5064-05	POTENTIOMETER MIC MIXING	YMX	
K1			S51-2094-05	MAGNETIC RELAY		
K3			S76-0005-05	MAGNETIC RELAY		
⚠ S1			S31-2322-05	SLIDE SWITCH VOLTAGE SELECTOR	YM	
D1			D3SBA20F03	DIODE		
D1			RBV-402LFA	DIODE		
D2 ,3			HSS104A	DIODE		
D2 ,3			1SS131	DIODE		
D8 ,9			S5688B	DIODE		
D8 ,9			1SR139-100	DIODE		
D10 ,11			HZS16N(B)	ZENER DIODE		
D10 ,11			RD16ES(B)	ZENER DIODE		
D12		*	HZS13N(B)	ZENER DIODE		
D12			RD13ES(B)	ZENER DIODE		
D16			HSS104A	DIODE		
D16			1SS131	DIODE		
D17			HZS11N(B)	ZENER DIODE	YMX	
D17			RD11ES(B)	ZENER DIODE	YMX	
D19			HZS4.7N(B)	ZENER DIODE		
D19			RD4.7ES(B)	ZENER DIODE		
D20			HZS3.3N(B)	ZENER DIODE		
D20			RD3.3ES(B)	ZENER DIODE		
D21			HSS104A	DIODE		
D21			1SS131	DIODE		
D23			HZS4.7N(B)	ZENER DIODE		

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D23			RD4.7ES(B)	ZENER DIODE		
D25 ,26			HSS104A	DIODE		
D25 ,26			1SS131	DIODE		
D29			HZS4.7N(B)	ZENER DIODE		
D29			RD4.7ES(B)	ZENER DIODE		
D31 ,32			HSS104A	DIODE		
D31 ,32			1SS131	DIODE		
D34 ,35			HSS104A	DIODE		
D34 ,35			1SS131	DIODE		
D38 ,39			HSS104A	DIODE		
D38 ,39			1SS131	DIODE		
D41 -44			HSS104A	DIODE	KPTE	
D41 -44			1SS131	DIODE	KPTE	
D41 -47			HSS104A	DIODE	YMX	
D41 -47			1SS131	DIODE	YMX	
D47			HSS104A	DIODE	KPTE	
D47			1SS131	DIODE	KPTE	
D48			HZS3.3N(B)	ZENER DIODE		
D48			RD3.3ES(B)	ZENER DIODE		
D51 ,52			S5688B	DIODE		
D51 ,52			1SR139-100	DIODE		
IC1			TC9163N	IC(BILATERAL SWITCH X16)		
IC2			NJM4565D-D	IC(OP AMP X2)	YMX	
IC2			XRA15218-DX	IC(OP AMP X2)	YMX	
IC3			CXA1642P	IC(KARAOKE VOCAL CANCEL)	YMX	
IC4			NJM4565D-D	IC(OP AMP X2)	YMX	
IC4			XRA15218-DX	IC(OP AMP X2)	YMX	
IC5			TDA3810	IC(PSEUDO STEREO CIRCUIT)		
IC6			NJM4580D-D	IC(OP AMP X2)		
IC7		⁎	STK301-090	CUSTOM IC		
IC8			NJM4565D-D	IC(OP AMP X2)		
IC8			XRA15218-DX	IC(OP AMP X2)		
IC9			UPC4570C-A	IC(OP AMP X2)		
IC10			NJM4565D-D	IC(OP AMP X2)		
IC10			XRA15218-DX	IC(OP AMP X2)		
IC11			TA8409S	IC(MOTOR CONTROL)		
IC12			NJM4580L-D	IC(OP AMP)		
IC13		⁎	STK401-041	IC(25W AF POWER AMP)	KP	
IC13		⁎	STK401-051	IC(30W AF POWER AMP)	YMX	
IC13		⁎	STK401-241	IC(25W AF POWER AMP)	TE	
IC14			NJM4580D-D	IC(OP AMP X2)		
IC16			UPC4570C-A	IC(OP AMP X2)		
IC17			TC9215P	IC(ANALOG SWITCH X 6)	YMX	
Q1 ,2			2SC2878(B)	TRANSISTOR		
Q3 ,4			2SC2003(L,K)	TRANSISTOR		
Q5			2SC1845(F,E)	TRANSISTOR		
Q6			2SA1175(F,E)	TRANSISTOR		
Q6			2SA933S(Q,R)	TRANSISTOR		
Q7 ,8			2SC2003(L,K)	TRANSISTOR		
Q9			2SA1175(F,E)	TRANSISTOR		
Q9			2SA933S(Q,R)	TRANSISTOR		
Q10			2SD2012	TRANSISTOR		
Q10			2SD2061	TRANSISTOR		
Q11			2SB1370	TRANSISTOR		
Q11			2SB1375	TRANSISTOR		

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Q15			2SD2012	TRANSISTOR		
Q15			2SD2061	TRANSISTOR		
Q16			DTC124ES	DIGITAL TRANSISTOR		
Q16			UN4212	DIGITAL TRANSISTOR		
Q17 ,18			2SC2878(B)	TRANSISTOR		

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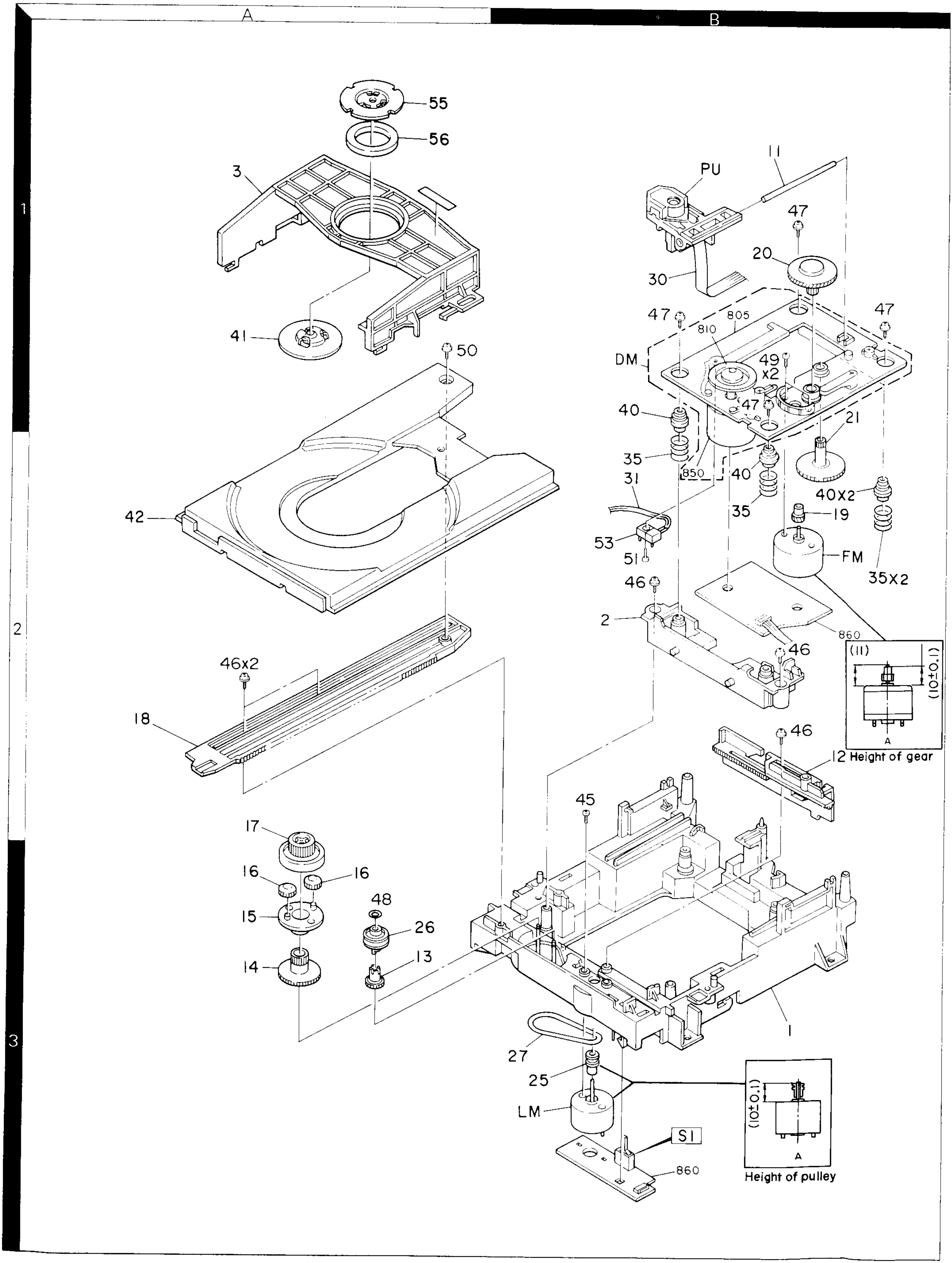
EXPLODED VIEW (CD MECHANISM UNIT)


A
B
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42
46x2
18
17
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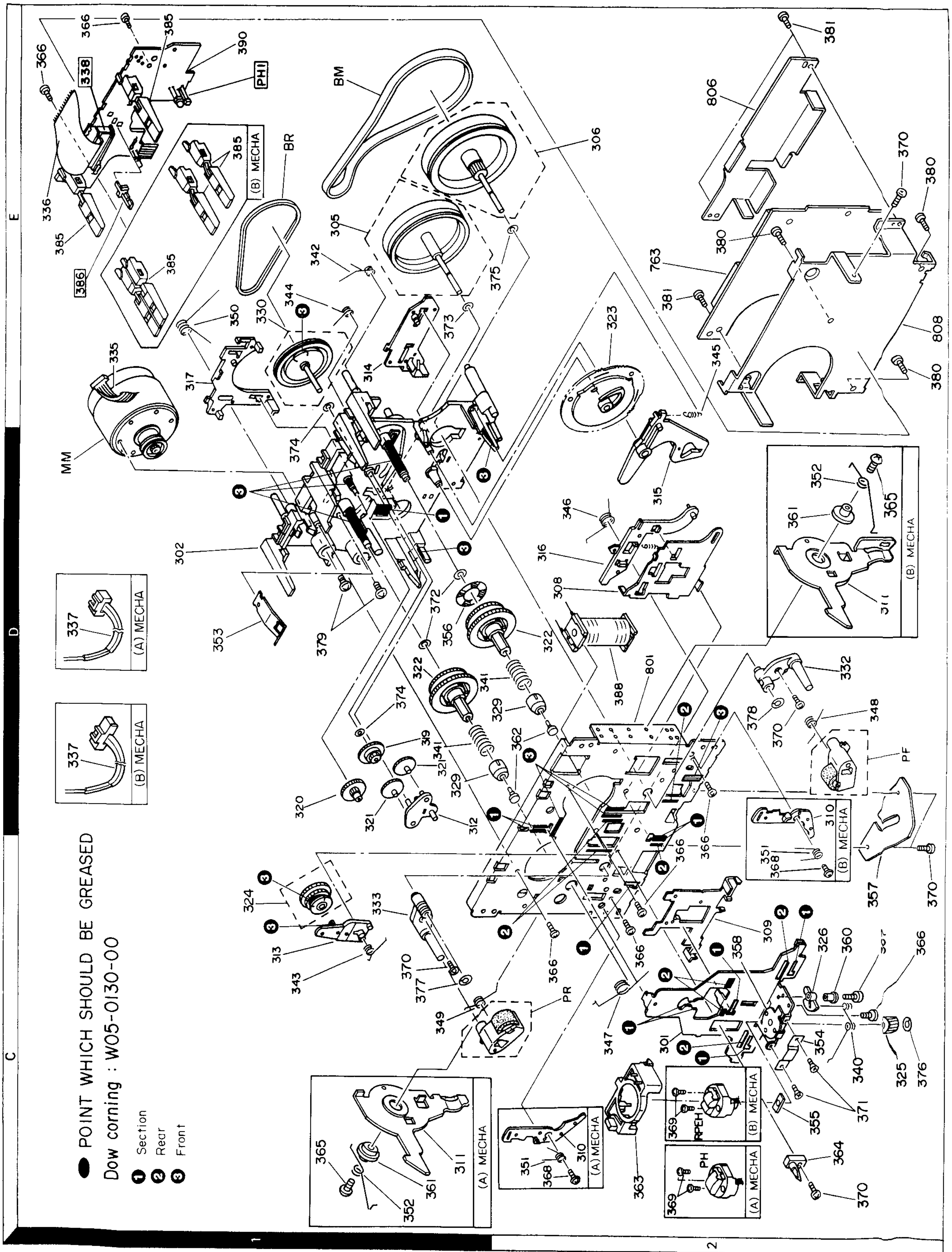
16
15
48
26
14
13
PU
11
47
20
30
47
805
810
47
DM
49
x2
47
40
21
35
31
850
40
40X2
35
19
53
51
FM
35X2
46
2
860
46
(11)
(10±0.1)
A
46
12 Height of gear
45
1
27
25
LM
S1
860
(10±0.1)
A
Height of pulley

Parts with the exploded numbers larger than 700 are not supplied.

EXPLODED VIEW (CASSETTE MECHANISM UNIT)


BM
BR
MM
PF
PR
PHI
RPEH
PH
(A) MECHA
(B) MECHA
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808
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1
2

● POINT WHICH SHOULD BE GREASED

Dow corning : W05-0130-00

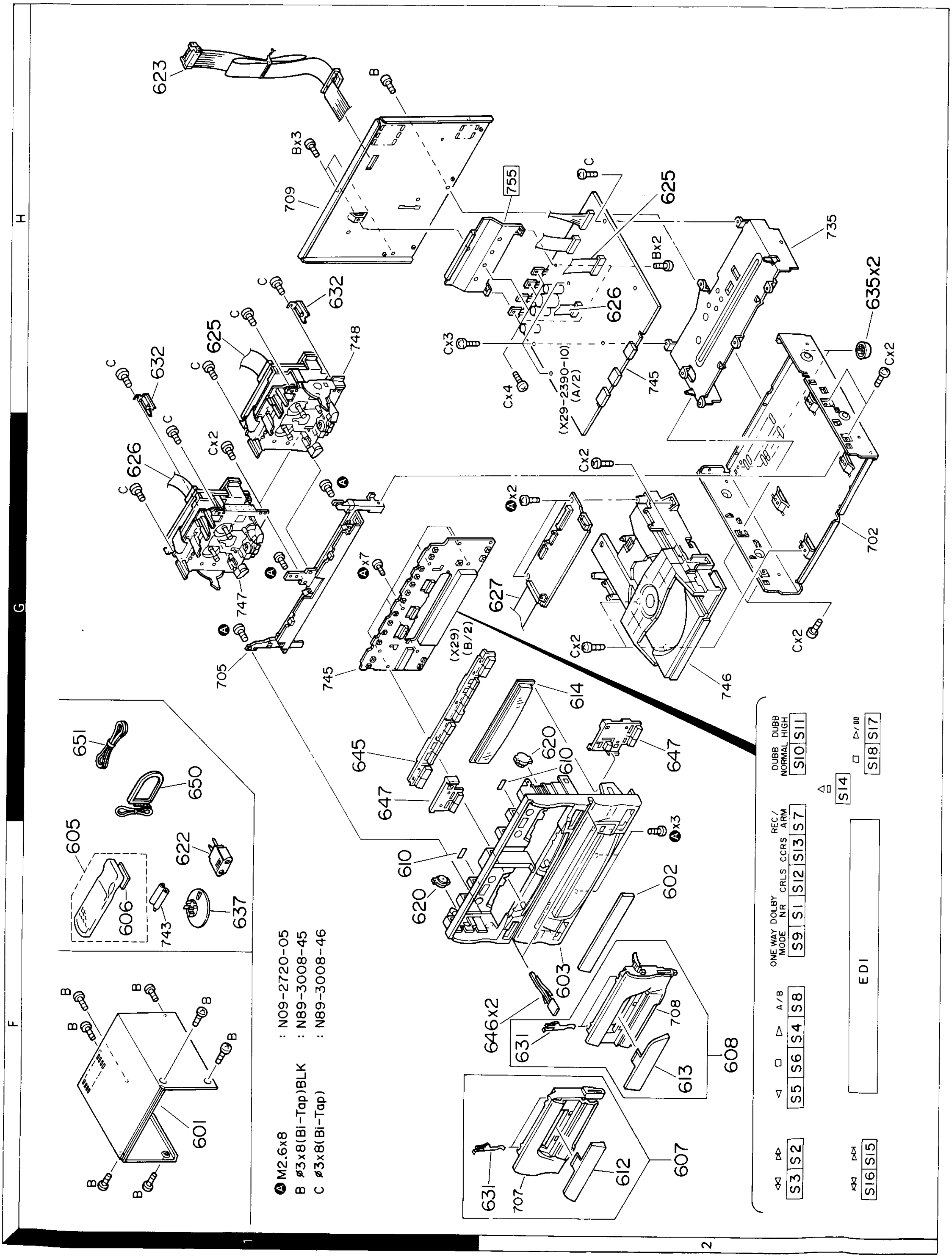
❶ Section

❷ Rear

❸ Front

Parts with the exploded numbers larger than 700 are not supplied.

EXPLODED VIEW (UNIT)


623
B
Bx3
709
755
C
625
Bx2
735
C
632
626
C
625
C
748
632
Cx3
Cx4
(X29-2390-10)
(A/2)
745
635x2
Cx2
626
C
C
Cx2
A
Cx2
Ax2
702
A
Ax7
627
747
A
705
745
(X29)
(B/2)
Cx2
746
Cx2
614
651
645
620
610
647
650
647
605
622
Ax3
610
620
602
606
743
637
603
646x2
B
B
B
B
B
631
708
608
613
601
B
B
631
707
612
607
F
G
H
1
2
ONE WAY MODE
DOLBY NR
CRLS
CCRS
REC/ARM
DUBB NORMAL
DUBB HIGH
S3
S2
S5
S6
S4
S8
S9
S1
S12
S13
S7
S10
S11
S14
S18
S17
S16
S15
ED1

A M2.6x8 : N09-2720-05
B ø3x8(Bi-Tap)BLK : N89-3008-45
C ø3x8(Bi-Tap) : N89-3008-46

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			X-B3 (SINGAPORE MADE)			
601	1F	*	A01-3006-01	METALLIC CABINET		
602	2F	*	A29-0329-03	PANEL CD DOOR		
603	2F	*	A60-0345-11	PANEL		
605	1F	*	X94-1011-31	REMOTE CONTROL ASSY UNIT		
606	1F		A09-0126-03	BATTERY COVER		
607	2F	*	A53-1388-13	CASSETTE HOLDER ASSY		A
608	2F	*	A53-1390-03	CASSETTE HOLDER ASSY		B
610	1F,2G		B07-1720-04	ESCUTCHEON		
612	2F	*	B10-1955-03	FRONT GLASS CASSETTE HOLDER		A
613	2F	*	B10-1956-03	FRONT GLASS CASSETTE HOLDER		B
614	2G	*	B10-1957-03	FRONT GLASS CD DOOR		
-			B46-0096-33	WARRANTY CARD	X	
-			B46-0121-23	WARRANTY CARD	P	
-			B46-0122-23	WARRANTY CARD	E	
-			B46-0143-13	WARRANTY CARD	T	
-			B46-0307-03	WARRANTY CARD	K	
-		*	B60-1150-00	INSTRUCTION MANUAL (ENGLISH)		
-		*	B60-1151-00	INSTRUCTION MANUAL (FRENCH)	PE	
-		*	B60-1152-00	INSTRUCTION MANUAL (GERMAN)	E	
-		*	B60-1153-00	INSTRUCTION MANUAL (DUTCH)	E	
-		*	B60-1154-00	INSTRUCTION MANUAL (ITALIAN)	E	
-		*	B60-1155-00	INSTRUCTION MANUAL (SPANISH)	ME	
-		*	B60-1156-00	INSTRUCTION MANUAL (CHINESE)	M	
-		*	B60-1157-00	INSTRUCTION MANUAL (ARABIC)	M	
620	1F,2G		D39-0198-05	DAMPER		
⚠ 622	1F		E03-0115-05	AC PLUG ADAPTER	M	
623	1H		E30-2686-05	CORD WITH CONNECTOR		
625	1H,2H		E35-0302-05	FLAT CABLE X29(CN9)- B DECK		
626	1G,2H		E35-0305-05	FLAT CABLE X29(CN8)- A DECK		
627	2G	*	E35-0552-15	FLAT CABLE X29(CN10)-X32(CN1)		
631	1F		G02-1001-24	FLAT SPRING		
632	1H	*	G02-1012-14	FLAT SPRING CASSETTE HOLDER		
		*	H50-0532-04	ITEM CARTON CASE	K	
		*	H50-0533-04	ITEM CARTON CASE	TE	
		*	H60-0122-04	OUTER CARTON CASE	PMX	
-		*	H10-5434-02	POLYSTYRENE FOAMED FIXTURE	KTE	
-		*	H10-5435-02	POLYSTYRENE FOAMED FIXTURE	KTE	
-		*	H10-5493-01	POLYSTYRENE FOAMED FIXTURE	PMX	
-		*	H10-5494-01	POLYSTYRENE FOAMED FIXTURE	PMX	
-			H13-0086-04	CARTON BOARD		
-		*	H20-0581-04	PROTECTION COVER	M	
-			H25-0632-24	PROTECTION BAG	KPMXE	
-			H25-0644-04	PROTECTION BAG (0632 PRINTED)	T	
-			H25-0672-04	PROTECTION BAG	KPXTE	
635	2H		J02-0370-05	FOOT		
637	1F		J19-2815-04	ANTENNA HOLDER		
645	1G	*	K29-5646-03	KNOB DECK CONTROL		
646	1F	*	K29-5647-04	KNOB EJECT		
647	1G,2G	*	K29-5645-03	KNOB CD CONTROL		

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A	1G,2G		N09-2720-05	TAPTITE SCREW (2.6X8)		
B	1F,1H		N89-3008-45	BINDING HEAD TAPTITE SCREW		
C	1G,2G		N89-3008-46	BINDING HEAD TAPTITE SCREW		
650	1G		T90-0174-05	LOOP ANTENNA		
651	1G		T90-0175-05	T TYPE ANTENNA		
652	1G		T90-0185-05	ANTENNA ADAPTOR	TE	
X-B3 (MALAYSIA MADE)						
601	1F	*	A01-3006-01	METALLIC CABINET		
602	2F	*	A29-0329-03	PANEL CD DOOR		
603	2F	*	A60-0345-01	PANEL		
605	1F	*	X94-1011-31	REMOTE CONTROL ASSY UNIT		
606	1F	*	A09-0126-03	BATTERY COVER		W
607	2F	*	A53-1388-03	CASSETTE HOLDER ASSY		A
608	2F	*	A53-1390-03	CASSETTE HOLDER ASSY		B
610	1F,2G		B07-1720-04	ESCUTCHEON		
612	2F	*	B10-1955-03	FRONT GLASS CASSETTE HOLDER		A
613	2F	*	B10-1956-03	FRONT GLASS CASSETTE HOLDER		B
614	2F	*	B10-1957-03	FRONT GLASS CD DOOR		
-			B46-0092-23	WARRANTY CARD	K	
-			B46-0121-23	WARRANTY CARD	P	
-		*	B60-1150-00	INSTRUCTION MANUAL (ENGLISH)		
-		*	B60-1151-00	INSTRUCTION MANUAL (FRENCH)	P	
620	1F,2G		D39-0176-05	DAMPER		
622	1G		E30-2686-05	CORD WITH CONNECTOR		
625	1H,2H		E35-0302-05	FLAT CABLE X29(CN9)- B DECK		
626	1G,2H		E35-0305-05	FLAT CABLE X29(CN8)- A DECK		
631	1G,1H		G02-1001-24	FLAT SPRING		
632	2F	*	G02-1012-04	FLAT SPRING CASSETTE HOLDER		
		*	H50-0534-04	ITEM CARTON CASE	K	
		*	H60-0123-04	OUTER CARTON CASE	P	
-		*	H10-5436-02	POLYSTYRENE FOAMED FIXTURE	K	
-		*	H10-5437-02	POLYSTYRENE FOAMED FIXTURE	K	
-		*	H10-5495-01	POLYSTYRENE FOAMED FIXTURE	P	
-		*	H10-5496-01	POLYSTYRENE FOAMED FIXTURE	P	
-			H13-0086-04	CARTON BOARD		
-			H25-0632-24	PROTECTION BAG		
-			H25-0672-04	PROTECTION BAG		
		*	J21-5946-02	UNIT MOUNTING HARDWARE		
635	2G		J02-0370-05	FOOT		
637	1G		J19-2815-04	ANTENNA HOLDER		
645	1G	*	K29-5646-03	KNOB DECK CONTROL		
646	1F	*	K29-5647-04	KNOB EJECT		
647	1G,2G	*	K29-5645-03	KNOB CD CONTROL		
A	1G		N09-2720-05	TAPTITE SCREW (2.6X8)		
B	1F,1H		N89-3008-45	BINDING HEAD TAPTITE SCREW		
C	1G,2G		N89-3008-46	BINDING HEAD TAPTITE SCREW		
650	1G		T90-0174-05	LOOP ANTENNA		
651	1G		T90-0175-05	T TYPE ANTENNA		
ELECTRIC UNIT (X25-4840-21)						
S1			S33-2062-05	LEVER SWITCH		

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RECORD/PLAYBACK AMPLIFIER UNIT (X28-2450-10)

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C1 ,2			CK45FB1H561K	CERAMIC 560PF K		
C5 ,6			CE04LW1H2R2M	ELECTRO 2.2UF 50WV		
C7 ,8			CK45FB1H391K	CERAMIC 390PF K		
C9 ,10			CF92FV1H223J	MF 0.022UF J		
C11 ,12			CE04LW1C470M	ELECTRO 47UF 16WV		
C13			CE04LW1C101M	ELECTRO 100UF 16WV		
C14			CQ93HP2A822J	MYLAR 8200PF J		
C15 -18			CC45FSL1H221J	CERAMIC 220PF J		
C19			CK45FB2H471K	CERAMIC 470PF K		
C20			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C21 ,22			CK45FB1H332K	CERAMIC 3300PF K		
C23			CK45FF1H103Z	CERAMIC 0.010UF Z		
C24			CK45FB1H102K	CERAMIC 1000PF K		
C25			CK45FF1H223Z	CERAMIC 0.022UF Z		
C51 ,52			CC45FSL1H221J	CERAMIC 220PF J		
C53 ,54			CK45FB1H391K	CERAMIC 390PF K		
C55 ,56			CE04LW1H2R2M	ELECTRO 2.2UF 50WV		
C57 ,58			CK45FB1H391K	CERAMIC 390PF K		
C59 ,60			CE04LW1C470M	ELECTRO 47UF 16WV		
C61 ,62			CF92FV1H153J	MF 0.015UF J		
C63			CE04LW1C101M	ELECTRO 100UF 16WV		
C64			CK45FB1H102K	CERAMIC 1000PF K		
L1 ,2		*	L40-1035-20	SMALL FIXED INDUCTOR(10MH,J)		
L3			L32-0542-05	BIAS OSCILATING COIL		
VR1			R12-1617-05	TRIMMING POT.(2.2K)		
VR2			R12-1616-05	TRIMMING POT.(1K)		
VR3 ,4			R12-0605-05	TRIMMING POT.(220)		
VR5 ,6			R12-5072-05	TRIMMING POT.(100K)		
VR7			R12-1617-05	TRIMMING POT.(2.2K)		
VR8			R12-1616-05	TRIMMING POT.(1K)		
VR9 ,10			R12-0605-05	TRIMMING POT.(220)		
K1			S76-0018-05	MAGNETIC RELAY		
D1 -4			HSS104	DIODE		
D1 -4			1SS133	DIODE		
D6 -9			HSS104	DIODE		
D6 -9			1SS133	DIODE		
D10			HZS11N(B2)	ZENER DIODE		
D10			RD11ES(B2)	ZENER DIODE		
D51 -55			HSS104	DIODE		
D51 -55			1SS133	DIODE		
IC1 ,2			TA8125S	IC(2CH PRE AMP)		
Q1 ,2			2SC3246	TRANSISTOR		
Q3 ,4			2SC1845(F,E)	TRANSISTOR		
Q5			2SA992(F,E)	TRANSISTOR		
Q6			2SA1175(F,E)	TRANSISTOR		
Q6			2SA933S(Q,R)	TRANSISTOR		
Q7 -12			2SC1740S(Q,R)	TRANSISTOR		
Q7 -12			2SC2785(F,E)	TRANSISTOR		
Q13 ,14			2SC3246	TRANSISTOR		
Q15			2SA1175(F,E)	TRANSISTOR		
Q15			2SA933S(Q,R)	TRANSISTOR		

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Q16			2SC1740S(Q,R)	TRANSISTOR		
Q16			2SC2785(F,E)	TRANSISTOR		
CONTROL UNIT (X29-2390-10)						
C1 ,2			CQ92FM1H222J	MYLAR 2200PF J		
C3 ,4			CE04LW1HR47M	ELECTRO 0.47UF 50WV		
C5 ,6			CQ92FM1H222J	MYLAR 2200PF J		
C7 -10			CE04LW1HR47M	ELECTRO 0.47UF 50WV		
C11 ,12			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C13 ,14			CK45FB1H682K	CERAMIC 6800PF K		
C15 ,16			C90-3254-05	ELECTRO 2.2UF 50WV		
C17 -20			CQ92FM1H222J	MYLAR 2200PF J		
C21 ,22			CK45FF1H223Z	CERAMIC 0.022UF Z		
C23 ,24			CQ92FM1H222J	MYLAR 2200PF J		
C25 -28			C90-3248-05	ELECTRO 0.1UF 50WV		
C29 ,30			C90-3244-05	ELECTRO 10UF 35WV		
C31 ,32			C90-3254-05	ELECTRO 2.2UF 50WV		
C33 ,34			C90-3251-05	ELECTRO 0.47UF 50WV		
C35 ,36			C90-3254-05	ELECTRO 2.2UF 50WV		
C37 ,38			CK45FB1H222K	CERAMIC 2200PF K		
C39 -44			CE04LW1V100M	ELECTRO 10UF 35WV		
C45 -52			CF92FV1H333J	MF 0.033UF J		
C53 ,54			C90-3253-05	ELECTRO 1UF 50WV		
C55 ,56			CE04LW1V100M	ELECTRO 10UF 35WV		
C57			CK45FF1H103Z	CERAMIC 0.010UF Z		
C101			CE04LW1V100M	ELECTRO 10UF 35WV		
C102			CE04LW1H2R2M	ELECTRO 2.2UF 50WV		
C103,104			CC45FSL1H101J	CERAMIC 100PF J		
C105,106			CK45FB1H102K	CERAMIC 1000PF K		
C107			CQ92FM1H222J	MYLAR 2200PF J		
C108			CE04LW1H331M	ELECTRO 330UF 50WV		
C109			C91-0769-05	CERAMIC 0.01UF K		
C110,111			CK45FF1H103Z	CERAMIC 0.010UF Z		
C112			C90-3244-05	ELECTRO 10UF 35WV		
C113			CK45FF1H103Z	CERAMIC 0.010UF Z		
C201			CE04LW1V100M	ELECTRO 10UF 35WV		
C202			CE04LW1V102M	ELECTRO 1000UF 35WV		
C203			CC45FSL1H101J	CERAMIC 100PF J		
C204			CE04LW1V471M	ELECTRO 470UF 35WV		
C205			CE04LW1V100M	ELECTRO 10UF 35WV		
C206			CE04LW1A101M	ELECTRO 100UF 10WV		
C207			CE04LW1V100M	ELECTRO 10UF 35WV		
C208			C90-3253-05	ELECTRO 1UF 50WV		
C209			CE04LW1V102M	ELECTRO 1000UF 35WV		
C210			CE04LW1V101M	ELECTRO 100UF 35WV		
C211			CC45FSL1H101J	CERAMIC 100PF J		
C212			CE04LW1A101M	ELECTRO 100UF 10WV		
C213			CE04LW1H471M	ELECTRO 470UF 50WV		
C214,215			CE04LW1V101M	ELECTRO 100UF 35WV		
C216-218			CE04LW1E221M	ELECTRO 220UF 25WV		
C219			CE04LW1V100M	ELECTRO 10UF 35WV		
C220			CE04LW1H100M	ELECTRO 10UF 50WV		
C221			CE04LW1V101M	ELECTRO 100UF 35WV		
C222			CE04LW1H470M	ELECTRO 47UF 50WV		
C223			CE04LW1C472M	ELECTRO 4700UF 16WV		

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C224			CE04LW1A101M	ELECTRO 100UF 10WV		
C225			CE04LW1C102M	ELECTRO 1000UF 16WV		
C226			CE04LW1C472M	ELECTRO 4700UF 16WV		
C227			CE04LW1V100M	ELECTRO 10UF 35WV		
C228			CE04LW1C102M	ELECTRO 1000UF 16WV		
C229			C90-3222-05	ELECTRO 100UF 10WV		
C230			CK45FF1H223Z	CERAMIC 0.022UF Z		
C231			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C232			C90-1827-05	BACKUP 0.047F 5.5WV		
C233			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C234			CE04LW1C330M	ELECTRO 33UF 16WV		
C235,236			CC45FSL1H221J	CERAMIC 220PF J		
C237			CE04LW1E221M	ELECTRO 220UF 25WV		
C238,239			CK45FF1H103Z	CERAMIC 0.010UF Z		
CN8	2H		E40-4155-05	FLAT CABLE CONNCTOR		
CN9	2H		E40-4163-05	FLAT CABLE CONNCTOR		
CN10	2H	*	E40-4675-05	FLAT CABLE CONNCTOR		
L1 ,2			L79-1201-05	LC FILTER		
L3 ,4			L40-1011-17	SMALL FIXED INDUCTOR(100UH,K)		
X1			L78-0294-05	RESONATOR 10.000MHz		
B	2H		N89-3008-45	BINDING HEAD TAPTITE SCREW		
C	2H		N89-3008-46	BINDING HEAD TAPTITE SCREW		
CP1			R90-0818-05	MULTI-COMP 47KX5 J 1/6W		
R201			RD14NB2E102J	RD 1.0K J 1/4W		
R202			RS14KB3D821J	FL-PROOF RS 820 J 2W		
R211			RD14NB2E101J	RD 100 J 1/4W		
R216			RS14KB3D4R7J	FL-PROOF RS 4.7 J 2W		
R218			RS14KB3D4R7J	FL-PROOF RS 4.7 J 2W		
R228		*	RD14NB2E1R5J	RD 1.5 J 1/4W		
S1 -18			S40-1064-05	PUSH SWITCH		
D101			HZS4.7N(B)	ZENER DIODE		
D101			RD4.7ES(B)	ZENER DIODE		
D102,103			RB721Q	DIODE		
D104-126			HSS104	DIODE		
D104-126			1SS133	DIODE		
D130-135			HSS104	DIODE		
D130-135			1SS133	DIODE		
D201			D3SBA20F03	DIODE		
D201			RBV-402LFA	DIODE		
D202			HZS6.8N(B2)	ZENER DIODE		
D202			RD6.8ES(B2)	ZENER DIODE		
D203			HSS104A	DIODE		
D203			1SS131	DIODE		
D204,205			HSS104	DIODE		
D204,205			1SS133	DIODE		
D206			HZS6.2N(B2)	ZENER DIODE		
D206			RD6.2ES(B2)	ZENER DIODE		
D207,208			S5688B	DIODE		
D207,208			1SR139-100	DIODE		
D209			HZS3.9N(B2)	ZENER DIODE		
D209			RD3.9ES(B2)	ZENER DIODE		
D210-212			HSS104A	DIODE		

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D210-212			1SS131	DIODE		
D213			HZS15N(B)	ZENER DIODE		
D213			RD15ES(B)	ZENER DIODE		
D214			HZS7.5S(B2)	ZENER DIODE		
D214			RD7.5JS(B2)	ZENER DIODE		
D215,216			S5688B	DIODE		
D215,216			1SR139-100	DIODE		
D217			HZS6.8N(B2)	ZENER DIODE		
D217			RD6.8ES(B2)	ZENER DIODE		
D218			HSS104A	DIODE		
D218			1SS131	DIODE		
D219-221			HSS104	DIODE		
D219-221			1SS133	DIODE		
D222			HZS16N(B2)	ZENER DIODE		
D222			RD16ES(B2)	ZENER DIODE		
ED1		*	11-BT-113GK	INDICATOR TUBE		
IC1		*	CXP82324-128Q	IC		
IC2			HA12157NT	IC(DOLBY B/C NR)		
IC3			TC4052BP	IC(4CH MPX/DE-MPX)		
IC3			XRU4052B	IC(MULTIPLEXER/DEMULTIPLEXER)		
IC4			NJM4565D	IC(OP AMP X2)		
IC4			XRA15218	IC(OP AMP X2)		
IC5		*	MN1381-R(TA)	IC(VOLTAGE DETECT)		
IC5		*	S-80740AL	IC(VOLTAGE DETECTOR)		
Q1 -6			2SC2878(B)	TRANSISTOR		
Q7 -14			DTC124ES	DIGITAL TRANSISTOR		
Q7 -14			UN4212	DIGITAL TRANSISTOR		
Q15 ,16			2SC1740S(Q,R)	TRANSISTOR		
Q15 ,16			2SC2785(F,E)	TRANSISTOR		
Q101			DTC124ES	DIGITAL TRANSISTOR		
Q101			UN4212	DIGITAL TRANSISTOR		
Q102			DTA124ES	DIGITAL TRANSISTOR		
Q102			UN4112	DIGITAL TRANSISTOR		
Q103			DTC124ES	DIGITAL TRANSISTOR		
Q103			UN4212	DIGITAL TRANSISTOR		
Q104			2SC3940A	TRANSISTOR		
Q105,106			2SC1740S(Q,R)	TRANSISTOR		
Q105,106			2SC2785(F,E)	TRANSISTOR		
Q107,108			DTA124ES	DIGITAL TRANSISTOR		
Q107,108			UN4112	DIGITAL TRANSISTOR		
Q109,110			DTC124ES	DIGITAL TRANSISTOR		
Q109,110			UN4212	DIGITAL TRANSISTOR		
Q111			DTA124ES	DIGITAL TRANSISTOR		
Q111			UN4112	DIGITAL TRANSISTOR		
Q201,202			2SD2061	TRANSISTOR		
Q203			2SA954(L,K)	TRANSISTOR		
Q204			2SC1740S(Q,R)	TRANSISTOR		
Q204			2SC2785(F,E)	TRANSISTOR		
Q205			2SC3944A	TRANSISTOR		
Q206,207			2SD1944	TRANSISTOR		
Q208			2SA954(L,K)	TRANSISTOR		
Q209			2SC1740S(Q,R)	TRANSISTOR		
Q209			2SC2785(F,E)	TRANSISTOR		

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SIGNAL PROCESSOR UNIT (X32-2260-01)						
C1 -4			CK73FB1H103K	CHIP C 0.010UF K		
C5			C90-3215-05	ELECTRO 220UF 6.3WV		
C31			CK73FB1E104K	CHIP C 0.10UF K		
C32 ,33			CC73FSL1H101J	CHIP C 100PF J		
C35			CC73FSL1H101J	CHIP C 100PF J		
C37 ,38			C90-3211-05	ELECTRO 33UF 6.3WV		
C39			C90-3253-05	ELECTRO 1UF 50WV		
C40			CK73FB1E104K	CHIP C 0.10UF K		
C41			CC73FSL1H470J	CHIP C 47PF J		
C42			CK73FB1H332K	CHIP C 3300PF K		
C43			CK73FB1H222K	CHIP C 2200PF K		
C44			CK73FB1H103K	CHIP C 0.010UF K		
C45			CK73FB1E104K	CHIP C 0.10UF K		
C46			CK73FB1E563K	CHIP C 0.056UF K		
C47			C90-3251-05	ELECTRO 0.47UF 50WV		
C48			CK73FB1H103K	CHIP C 0.010UF K		
C49			CK73FB1E104K	CHIP C 0.10UF K		
C50			CK73FB1H561K	CHIP C 560PF K		
C51 ,52			CK73FB1H333K	CHIP C 0.033UF K		
C53			C90-3209-05	ELECTRO 10UF 6.3WV		
C54			CK73FB1H222K	CHIP C 2200PF K		
C55			CK73FB1H152K	CHIP C 1500PF K		
C56			CC73FSL1H820J	CHIP C 82PF J		
C57			C90-3471-05	ELECTRO 1UF 50WV		
C59			C90-3227-05	ELECTRO 33UF 16WV		
C60			C90-3210-05	ELECTRO 22UF 6.3WV		
C61 ,62			CK73FB1H103K	CHIP C 0.010UF K		
C63			CK73FB1E104K	CHIP C 0.10UF K		
C64			CK73FB1H223K	CHIP C 0.022UF K		
C65			CK73FB1H332K	CHIP C 3300PF K		
C66			C90-3471-05	ELECTRO 1UF 50WV		
C67			C90-3450-05	ELECTRO 22UF 6.3WV		
C68 ,69			CK73FB1H103K	CHIP C 0.010UF K		
C70			C90-3471-05	ELECTRO 1UF 50WV		
C101			CK73FB1H473K	CHIP C 0.047UF K		
C102			CK73FB1H152K	CHIP C 1500PF K		
C103			CE04LW1A470M	ELECTRO 47UF 10WV		
C104			CK73FB1H103K	CHIP C 0.010UF K		
C105,106			CC73FCH1H100D	CHIP C 10PF D		
C107,108			C90-3212-05	ELECTRO 47UF 6.3WV		
C109			CC73FCH1H050C	CHIP C 5PF C		
C112			C90-3214-05	ELECTRO 100UF 6.3WV		
C113,114			CK73FB1H221K	CHIP C 220PF K		
C115-118			CK73FB1H271K	CHIP C 270PF K		
C122			C90-3215-05	ELECTRO 220UF 6.3WV		
C125-129			CK73FB1H103K	CHIP C 0.010UF K		
C131			CK73FB1H222K	CHIP C 2200PF K		
C132			C90-3253-05	ELECTRO 1UF 50WV		
X1			L77-2109-05	CRYSTAL RESONATOR 16.9344MHz		
VR1 ,2			R12-3686-05	TRIMMING POT.(22K)		
D1 -5			MA110	DIODE		

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PARTS LIST

※ New Parts

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Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
D6			DTZ5.1(B)	ZENER DIODE		
D6			MA8051-M	ZENER DIODE		
D7 -12			MA110	DIODE		
D13			DTZ2.7(B)	ZENER DIODE		
D13			MA8027-H	ZENER DIODE		
IC1			UPD75216AGF-676	IC		
IC2			TA8409F	IC(MOTOR DRIVER)		
IC3			CXA1372Q	IC(CD RF SERVO)		
IC4 ,5			TA8406F	IC		
IC6			CXD2500AQ	IC(SIGNAL PROCESSOR)		
IC7			SM5871AS	IC(D/A CONVERTER x8 OVER SAM)		
IC8			NJM4565M	IC(OP AMP)		
IC9			XRA10393F	IC		
IC10			TC74HCU04AF	IC(HEX INVERTER SMD)		
IC11			M5237ML	IC(VOLTAGE REGULATOR)		
Q1			DTC124EK	DIGITAL TRANSISTOR		
Q2			2SB1308(Q,R)	TRANSISTOR		
CD MECHANISM ASSY (X92-1750-41)						
1	3B		A10-2974-01	CHASSIS		
2	2B		A11-0756-03	SUB CHASSIS		
3	1A		A11-0757-02	SUB CHASSIS		
11	1B		D10-2490-04	ROD		
12	2B		D10-3253-03	SLIDER		
13	3A		D13-0975-04	GEAR		
14	3A		D13-0976-03	GEAR		
15	3A		D13-0977-03	GEAR		
16	3A		D13-0978-03	GEAR		
17	2A		D13-0979-03	GEAR		
18	2A		D13-0980-02	LACK (GEAR)		
19	2B		D13-0894-05	GEAR		
20	1B		D13-0895-05	GEAR		
21	1B		D13-0896-05	GEAR		
25	3B		D15-0328-04	MOTOR PULLEY		
26	3A		D15-0329-03	PULLEY		
27	3B		D16-0333-03	BELT		
30	1B		E35-0296-05	FLAT CABLE		
31	2B		E35-0420-05	LEAD WIRE		
35	2B		G01-3326-14	COMPRESSION SPRING		
40	1B,2B		J02-1058-15	INSULATOR		
41	1A		J11-0180-03	CLAMPER		
42	2A		J99-0514-01	TRAY		
45	2B		N09-2543-05	SEMS (MACHINE SCREW)		
46	2A,2B		N09-2769-05	MACHINE SCREW		
47	1B		N09-2817-05	TAPTITE SCREW (2.6X10,12P)		
48	3A		N19-0891-04	FLAT WASHER		
49	1B		N39-2025-46	PAN HEAD MACHIN SCREW		
50	1A		N82-2608-46	BINDIG HEAD TAPTITE SCREW		
51	2B		N89-2008-46	BINDING HEAD TAPTITE SCREW		
53	2B		S33-1022-05	LEVER SWITCH		
55	1A		T50-1058-04	YOKE		
56	1A		T99-0503-15	MAGNET		
-			G16-0753-08	SHEET		
DM	1B		A11-0733-05	SUB CHASSIS ASSY		
FM	2B		T42-0532-05	DC MOTOR		

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LM	3B		T42-0609-05	DC MOTOR		
PU	1B		T25-0022-05*	OPTICAL PICKUP HEAD		
CASSETTE MECHANISM ASSY (D40-1289-05 : A, 1291-05 : B)						
301	2C		A10-2922-08	HEAD CHASSIS CALKED ASSY		
302	1D		A11-0754-08	BASE CHASSIS ASSY		
305	1E		D01-0138-08	FLYWHEEL ASSY LEFT		
306	2E		D01-0139-08	FLYWHEEL ASSY RIGHT		
308	2D		D10-3210-08	SHIFT LEVER		
309	2C		D10-3211-08	PLAY SHIFT LEVER		
310	2D		D10-3212-08	INTER LOCK LEVER RIGHT		B
310	2C		D10-3220-08	INTER LOCK LEVER LEFT		A
311	1C		D10-3304-08	EJECT LEVER LEFT		A
311	2D		D10-3305-08	EJECT LEVER RIGHT		B
312	1D		D10-3214-08	FR ARM		
313	1C		D10-3215-08	PLAY ARM		
314	1E		D10-3216-08	SHIFT SELECT LEVER		
315	2D		D10-3217-08	TRIGGER ARM		
316	2D		D10-3218-08	SELECT ARM		
317	1E		D10-3219-08	BRAKE ARM		
319	1D		D13-0965-08	CLUTCH GEAR		
320	1D		D13-0966-08	REW GEAR		
321	1D		D13-0967-08	FR GEAR		
322	1D,2D		D13-0968-08	REEL GEAR		
323	2E		D13-0970-08	PLAY CAM GEAR		
324	1C		D13-0974-08	PLAY GEAR ASSY		
325	2C		D13-0981-08	ROTATION GEAR		
326	2C		D13-0982-08	RETURN GEAR		
329	1D,2D		D19-0270-18	REEL CAP		
330	1E		D19-0273-08	CLUTCH PULLEY ASSY		
332	2D		D23-0284-08	HOUSING ASSY RIGHT		
333	1C		D23-0270-08	HOUSING ASSY LEFT		
335	1E		E35-0264-08	MOTOR WIRE		
336	1E		E35-0396-08	FLAT WIRE 15P		
337	1D		E35-0394-08	HEAD WIRE 5P		B
337	1D		E35-0398-08	HEAD WIRE 3P		A
338	1E		E40-4244-05	PIN CONNECTOR		
340	2C		G01-3428-08	RETURN GEAR SPRING		
341	1D		G01-3429-08	REEL SPRING		
342	1E		G01-3431-08	CLUTCH ARM SPRING		
343	1C		G01-3432-08	PLAY ARM SPRING		
344	1E		G01-3433-08	SHIFT SELECT LEVER SPRING		
345	2E		G01-3434-08	TRIGGER ARM SPRING		
346	2D		G01-3435-08	SHIFT LEVER SPRING		
347	2C		G01-3436-08	HEAD CHASSIS SPRING		
348	2D		G01-3437-08	PINCH ROLLER ARM SPRING RIGHT		
349	1C		G01-3438-08	PINCH ROLLER ARM SPRING LEFT		
350	1E		G01-3439-08	BRAKE ARM SPRING		
351	2C		G01-3440-08	INTER LOCK LEVER SPRING RIGHT		B
351	2C		G01-3441-08	INTER LOCK LEVER SPRING LEFT		A
352	1C	*	G01-3602-08	EJECT LEVER SPRING LEFT		A
352	2D	*	G01-3603-08	EJECT LEVER SPRING RIGHT		B
353	1D		G02-0913-08	PACK LOCK FLAT SPRING		
354	2C		G02-0994-08	AZIMUTH SPRING		
355	2C		G11-2117-08	HEAD WIRE CLAMPER		

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356	1D,2D		G16-0780-08	REFLECT SEAL		
357	2C		G16-0786-08	INSULATING SHEET		
358	2C		J21-5918-08	HEAD PLATE ASSY		
360	2C		J31-0850-08	RETURN GEAR COLLAR		
361	1C,2D		J31-0852-08	EJECT LEVER COLLAR		
362	2D		J42-0183-08	REEL CAP BUSHING		
363	1C		J90-0679-08	TAPE GUIDE		
364	1C		J90-0680-08	CASSETTE GUIDE		
365	1C,2D		N09-2952-08	SCREW M2.6X8		
366	2C,2D		N09-2871-08	SCREW M2X6		
367	2C		N09-2872-08	SCREW M1.7X8		
368	2C		N09-2953-08	SCREW M2X10		
369	2C		N09-2876-08	HEAD SCREW		
370	2C,2D		N09-2877-08	TAP TITE SCREW M2X4		
371	2C		N19-2883-08	AZIMUTH SCREW		
372	1D		N19-1224-08	FLAT WASHER /4.1X6.5X0.25		
373	1E		N19-1225-08	FLAT WASHER /2.1X4.0X0.25		
374	1D		N19-1285-08	FLAT WASHER /1.6X3.0X0.13		
375	2E		N19-1286-08	FLAT WASHER /2.3X4.0X0.25		
376	2C		N19-1287-08	FLAT WASHER /3.5X6.5X0.5		
377	1C		N19-1288-08	FLAT WASHER /1.65X5.0X0.5		
378	2D		N19-1316-08	FLET WASHER /1.8X6.0X0.5		
379	1D		N35-2604-46	BINDING HEAD MACHINE SCREW		
380	2E		N09-2900-08	SCREW M2X6		
381	2E		N09-2901-08	SCREW M2X4		
385	1E		S74-0006-08	LEAF SWITCH (REC,METAL,CrO2)		
386	1E		S74-0007-08	LEAF SWITCH (PACK DETECT)		
388	2D		T94-0228-08	SOLENOID ASSY		
390	1E		W02-1130-08	ELECTRIC UNIT		
BM	1E		D16-0332-08	MAIN BELT		
BR	1E		D16-0331-08	REEL BELT		
PF	2D		D14-0341-08	PINCH ROLLER ASSY		
PR	2C		D14-0340-08	PINCH ROLLER ASSY		
MM	1D		T42-0599-08	DC MOTOR ASSY		
PH	2C		T31-0066-08	PLAYBACK HEAD		A
RPEH	2C		T39-0020-08	REC/PLAYBACK/ERASE HEAD		B
PH1	1E		NJL5165K	PHOTO REFLECTOR		

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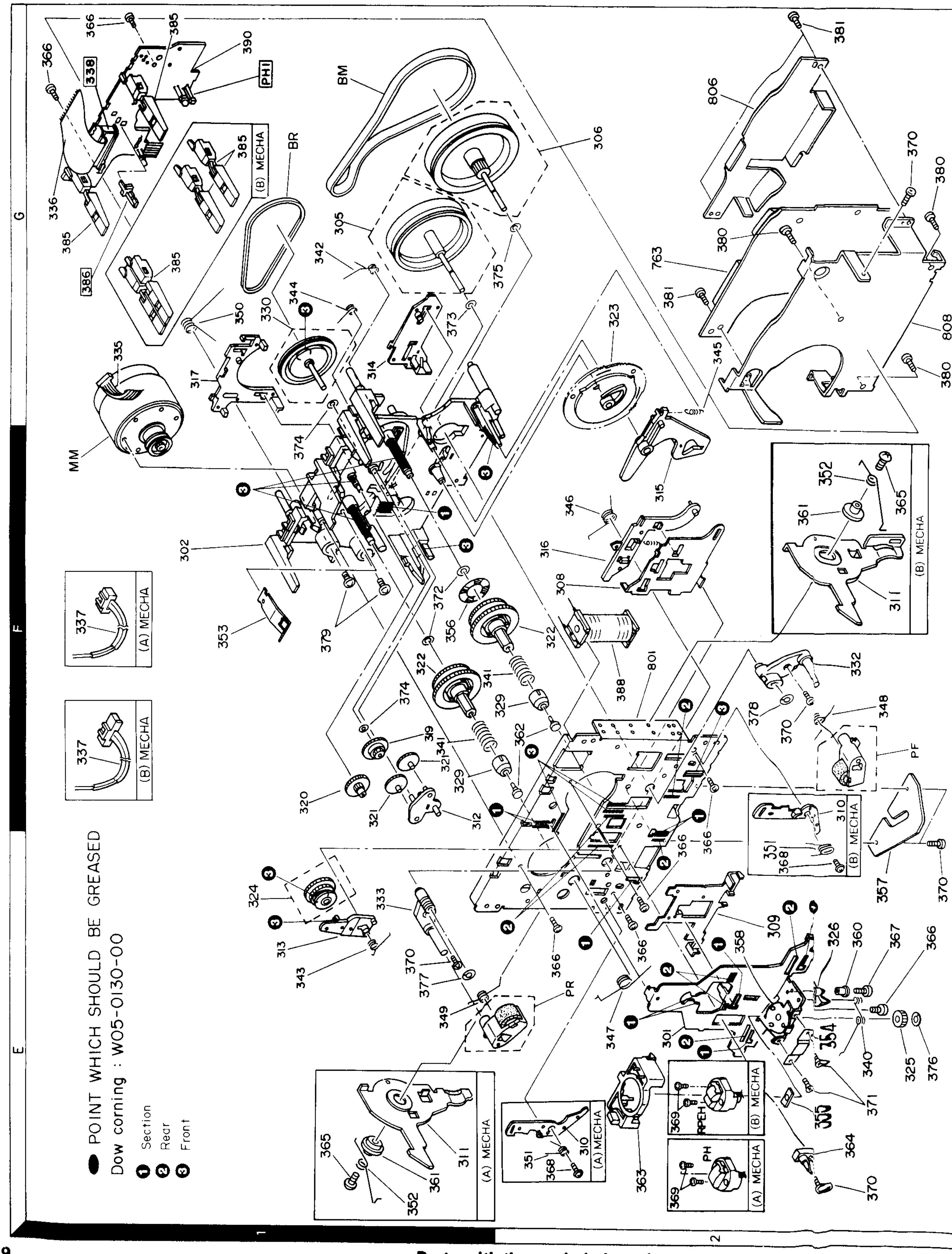
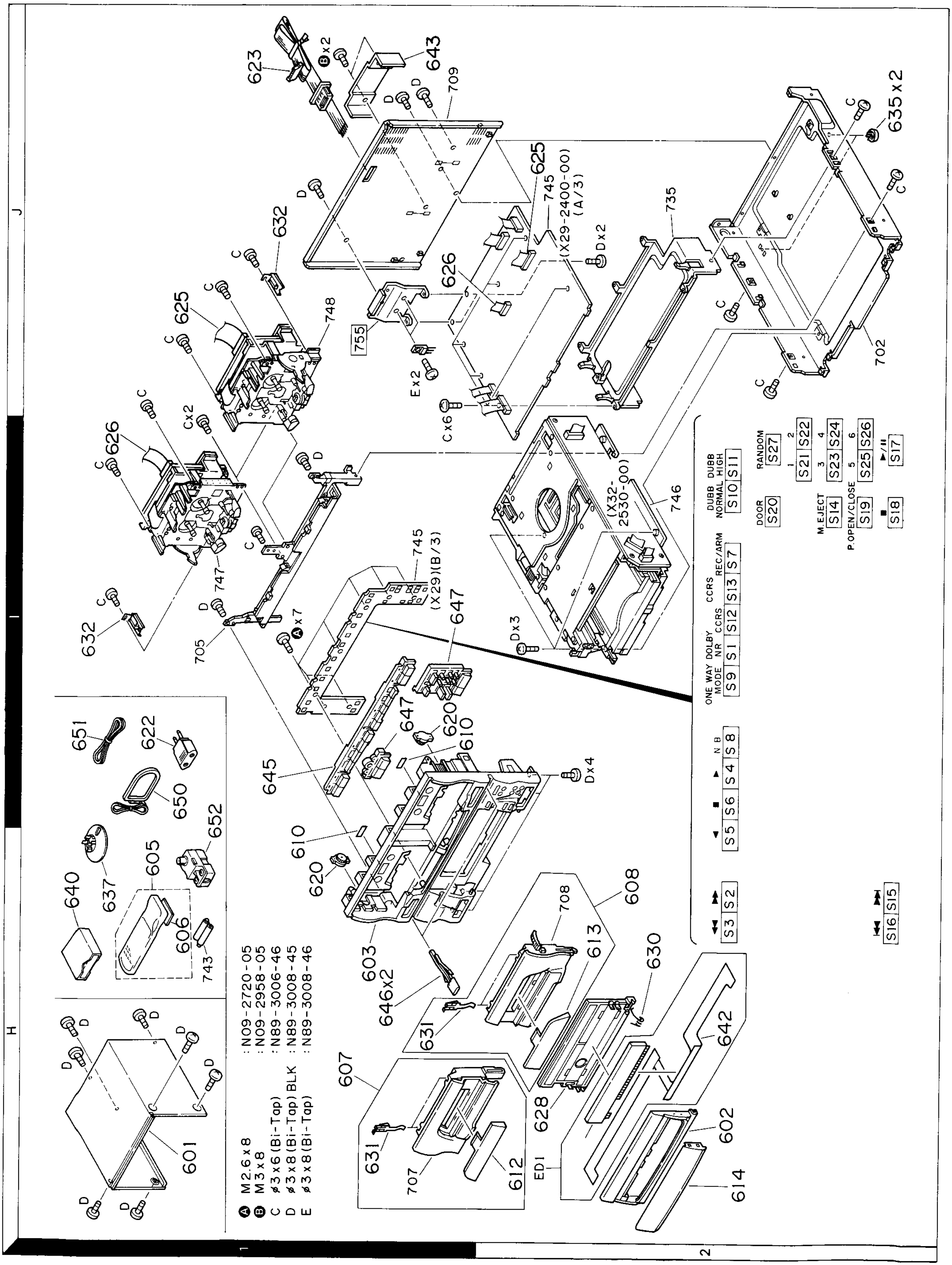
EXPLODED VIEW (CASSETTE MECHANISM UNIT)


● POINT WHICH SHOULD BE GREASED
Dow corning : W05-0130-00
❶ Section
❷ Rear
❸ Front
G
F
E
1
2
366
385
390
PHI
338
336
386
(B) MECHA
BR
BM
306
305
342
375
350
330
344
317
335
MM
314
373
323
345
381
806
370
380
763
808
374
302
353
379
372
356
322
346
316
308
315
352
361
365
311
337
(A) MECHA
320
319
321
312
341
329
362
388
801
332
378
348
PF
310
351
368
357
324
313
343
333
377
349
PR
347
301
309
358
326
360
367
325
376
340
371
355
354
364
363
PH
RPEH
369

EXPLODED VIEW (UNIT)


623
B x2
643
D
D
709
635 x2
C
C
625
745
(X29-2400-00)
(A/3)
D x2
735
D
632
C
C
625
748
626
755
E x2
C x6
C
702
C
C
C
C x2
626
C
D
746
(X32-2530-00)
C
747
745
(X29)(B/3)
D x3
C
632
D
705
A x7
647
651
622
647
620
610
645
D x4
650
640
637
605
652
610
620
606
743
603
608
708
613
630
646x2
631
A M2.6x8 : N09-2720-05
B M3x8 : N09-2958-05
C ø3x6(Bi-Tap) : N89-3006-46
D ø3x8(Bi-Tap)BLK : N89-3008-45
E ø3x8(Bi-Tap) : N89-3008-46
D
D
D
D
D
D
601
607
631
707
612
628
ED1
642
602
614
ONE WAY MODE S9
DOLBY NR S1
CCRS S12
CCRS S13
REC/ARM S7
DUBB NORMAL S10
DUBB HIGH S11
DOOR S20
RANDOM S27
1 S21
2 S22
3 S23
4 S24
5 S25
6 S26
M.EJECT S14
P.OPEN/CLOSE S19
■ S18
►/II S17
◄ S5
■ S6
► S4
N B S8
S3
S2
S16
S15
J
I
H
1
2

Parts with the exploded numbers larger than 700 are not supplied.

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X-MB3 (SINGAPORE MADE)						
601	1H	*	A01-3008-01	METALLIC CABINET		
602	2H	*	A29-0330-12	PANEL CD DOOR		
603	1H	*	A60-0346-01	PANEL		
605	1H	*	X94-1011-21	REMOTE CONTROL ASSY UNIT		
606	1H		A09-0126-03	BATTERY COVER		
607	1H	*	A53-1392-13	CASSETTE HOLDER ASSY		A
608	2H		A53-1390-13	CASSETTE HOLDER ASSY		B
610	1H,1I		B07-1720-04	ESCUTCHEON		
612	2H		B10-1955-03	FRONT GLASS CASSETTE HOLDER		A
613	2H		B10-1956-03	FRONT GLASS CASSETTE HOLDER		B
614	2H	*	B10-1958-03	FRONT GLASS CD DOOR		
-			B46-0092-23	WARRANTY CARD	K	
-			B46-0094-03	WARRANTY CARD	Y	
-			B46-0095-03	WARRANTY CARD	Y	
-			B46-0096-33	WARRANTY CARD	X	
-			B46-0122-23	WARRANTY CARD	E	
-			B46-0143-13	WARRANTY CARD	T	
-			B59-0179-14	CAUTION CARD		
-		*	B60-1159-00	INSTRUCTION MANUAL (ENGLISH)		
-		*	B60-1160-00	INSTRUCTION MANUAL (FRENCH)	E	
-		*	B60-1161-00	INSTRUCTION MANUAL (GERMAN)	E	
-		*	B60-1162-00	INSTRUCTION MANUAL (DUTCH)	E	
-		*	B60-1163-00	INSTRUCTION MANUAL (ITALIAN)	E	
-		*	B60-1164-00	INSTRUCTION MANUAL (SPANISH)	ME	
-		*	B60-1165-00	INSTRUCTION MANUAL (CHINESE)	M	
-		*	B60-1166-00	INSTRUCTION MANUAL (ARABIC)	M	
620	1H,1I		D39-0198-05	DAMPER		
⚠ 622	1I		E03-0115-05	AC PLUG ADAPTER	M	
623	1J		E30-2686-05	CORD WITH CONNECTOR		
625	1J,2J		E35-0302-05	FLAT CABLE 23P X29(CN9)-B DACK		
626	1I,2J		E35-0305-05	FLAT CABLE 15P X29(CN8)-A DACK		
628	2H	*	F07-0707-13	COVER CD DOOR		
630	2H	*	G01-3511-04	TORSION COIL SPRING		
631	1H		G02-1001-24	FLAT SPRING		
632	1I,1J		G02-1012-04	FLAT SPRING		
		*	H50-0546-04	ITEM CARTON CASE	K	
		*	H50-0547-04	ITEM CARTON CASE	TE	
		*	H60-0125-04	OUTER CARTON CASE	YMX	
-		*	H10-5464-02	POLYSTYRENE FOAMED FIXTURE	KTE	
-		*	H10-5465-02	POLYSTYRENE FOAMED FIXTURE	KTE	
-		*	H10-5497-01	POLYSTYRENE FOAMED FIXTURE	YMX	
-		*	H10-5498-01	POLYSTYRENE FOAMED FIXTURE	YMX	
-			H13-0086-04	CARTON BOARD		
-			H20-0581-04	PROTECTION COVER	M	
-			H25-0632-24	PROTECTION BAG	KYMXE	
-			H25-0644-04	PROTECTION BAG (0632 PRINTED)	T	
-		*	H25-0693-04	PROTECTION BAG	KYXTE	
635	2J		J02-0370-05	FOOT REAR		
637	1H		J19-2815-04	ANTENNA HOLDER		
640	1H	*	J19-3578-03	CD HOLDER ASSY		

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UD-301/351

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642	2H	*	J80-0005-08	FLAT WIRING BOARD FL		
643	1J		J21-5947-04	MOUNTING HARDWARE		
-			J61-0307-05	WIRE BAND		
645	1I		K29-5646-03	KNOB DECK CONTROL		
646	1H		K29-5647-04	KNOB EJECT		
647	1I	*	K29-5648-03	KNOB CD CONTROL		
A	1I		N09-2720-05	TAPTITE SCREW (2.6X8)		
B	1J		N09-2958-05	SET SCREW		
C	1I,1J		N89-3006-46	BINDING HEAD TAPTITE SCREW		
D	1H,1J		N89-3008-45	BINDING HEAD TAPTITE SCREW		
650	1I		T90-0174-05	LOOP ANTENNA		
651	1I		T90-0175-05	T TYPE ANTENNA		
652	1I		T90-0185-05	ANTENNA ADAPTOR	TE	
ED1	2H	*	FIP10KM5	INDICATOR TUBE		
X-MB3 (MALAYSIA MADE)						
601	2H	*	A01-3008-01	METALLIC CABINET		
602	2H	*	A29-0330-12	PANEL CD DOOR		
603	1H	*	A60-0346-11	PANEL		
605	1H	*	X94-1011-21	REMOTE CONTROL ASSY UNIT		
606	1H		A09-0126-03	BATTERY COVER		
607	1H	*	A53-1392-13	CASSETTE HOLDER ASSY		A
608	2H		A53-1390-13	CASSETTE HOLDER ASSY		B
610	1H,1I		B07-1720-04	ESCUTCHEON		
612	2H		B10-1955-03	FRONT GLASS CASSETTE HOLDER		A
613	2H		B10-1956-03	FRONT GLASS CASSETTE HOLDER		B
614	2H	*	B10-1958-03	FRONT GLASS CD DOOR		
-			B46-0307-03	WARRANTY CARD		
-		*	B58-0950-04	CAUTION CARD		
-		*	B60-1159-00	INSTRUCTION MANUAL (ENGLISH)		
620	1H,1J		D39-0198-05	DAMPER		
623	1J		E30-2686-05	CORD WITH CONNECTOR		
625	1J,2J		E35-0302-05	WIRING HARNESS X29(CN9)-B DECK		
626	1I,2J		E35-0305-05	WIRING HARNESS X29(CN8)-A DECK		
628	2H	*	F07-0707-13	COVER CD DOOR		
630	2H	*	G01-3511-14	TORSION COIL SPRING		
631	1H		G02-1001-24	FLAT SPRING		
632	1I,1J		G02-1012-14	FLAT SPRING		
		*	H50-0736-04	ITEM CARTON CASE		
-		*	H10-5564-02	POLYSTYRENE FOAMED FIXTURE		
-		*	H10-5565-02	POLYSTYRENE FOAMED FIXTURE		
-			H13-0086-04	CARTON BOARD		
-			H25-0632-24	PROTECTION BAG		
-		*	H25-0693-04	PROTECTION BAG		
635	2J		J02-0370-05	FOOT		
637	1H		J19-2815-04	ANTENNA HOLDER		
640	1H	*	J19-3578-03	CD HOLDER ASSY		
642	2H	*	J80-0005-08	FLAT WIRING BOARD FL		
643	1J		J21-5947-04	MOUNTING HARDWARE		
-			J61-0307-05	WIRE BAND		

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645	1I		K29-5646-03	KNOB DECK CONTROL		
646	1H		K29-5647-04	KNOB EJECT		
647	1I	*	K29-5648-03	KNOB CD CONTROL		
A	1I		N09-2720-05	TAPTITE SCREW (2.6X8,ﾊﾞｲﾝﾄﾞP)		
B	1J		N09-2958-05	SET SCREW		
C	1I,1J		N89-3006-46	BINDING HEAD TAPTITE SCREW		
D	1H,1J		N89-3008-45	BINDING HEAD TAPTITE SCREW		
650	1I		T90-0174-05	LOOP ANTENNA		
651	1I		T90-0175-05	T TYPE ANTENNA		
652	1I	*	T94-0227-18	MAGNETIC PLUNGER		
ED1	2H	*	FIP10KM5	INDICATOR TUBE		
ELECTRIC UNIT (X25-5330-20)						
660	1B	*	E35-0599-05	WIRING HARNESS		
SW2	1B		S64-0006-05	LEVER SWITCH		
SW3 ,4	1B		S68-0025-05	PUSH SWITCH		
SW5	1B		S33-2062-05	LEVER SWITCH		
PH1	1B		T95-0123-05	OPTO ISOLATOR		
RECORD /PLAYBACK UNIT (X28-2450-10)						
C1 ,2			CK45FB1H561K	CERAMIC 560PF K		
C5 ,6			CE04LW1H2R2M	ELECTRO 2.2UF 50WV		
C7 ,8			CK45FB1H391K	CERAMIC 390PF K		
C9 ,10			CF92FV1H223J	MF 0.022UF J		
C11 ,12			CE04LW1C470M	ELECTRO 47UF 16WV		
C13			CE04LW1C101M	ELECTRO 100UF 16WV		
C14			CQ93HP2A822J	MYLAR 8200PF J		
C15 -18			CC45FSL1H221J	CERAMIC 220PF J		
C19			CK45FB2H471K	CERAMIC 470PF K		
C20			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C21 ,22			CK45FB1H332K	CERAMIC 3300PF K		
C23			CK45FF1H103Z	CERAMIC 0.010UF Z		
C24			CK45FB1H102K	CERAMIC 1000PF K		
C25			CK45FF1H223Z	CERAMIC 0.022UF Z		
C51 ,52			CC45FSL1H221J	CERAMIC 220PF J		
C53 ,54			CK45FB1H391K	CERAMIC 390PF K		
C55 ,56			CE04LW1H2R2M	ELECTRO 2.2UF 50WV		
C57 ,58			CK45FB1H391K	CERAMIC 390PF K		
C59 ,60			CE04LW1C470M	ELECTRO 47UF 16WV		
C61 ,62			CF92FV1H153J	MF 0.015UF J		
C63			CE04LW1C101M	ELECTRO 100UF 16WV		
C64			CK45FB1H102K	CERAMIC 1000PF K		
L1 ,2			L40-1035-20	SMALL FIXED INDUCTOR(10MH,J)		
L3			L32-0542-05	BIAS OSCILATING COIL		
VR1			R12-1617-05	TRIMMING POT.(2.2K)		
VR2			R12-1616-05	TRIMMING POT.(1K)		
VR3 ,4			R12-0605-05	TRIMMING POT.(220)		
VR5 ,6			R12-5072-05	TRIMMING POT.(100K)		
VR7			R12-1617-05	TRIMMING POT.(2.2K)		
VR8			R12-1616-05	TRIMMING POT.(1K)		
VR9 ,10			R12-0605-05	TRIMMING POT.(220)		
K1			S76-0018-05	MAGNETIC RELAY		

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D1 -4			HSS104	DIODE		
D1 -4			1SS133	DIODE		
D6 -9			HSS104	DIODE		
D6 -9			1SS133	DIODE		
D10			HZS11N(B2)	ZENER DIODE		
D10			RD11ES(B2)	ZENER DIODE		
D51 -55			HSS104	DIODE		
D51 -55			1SS133	DIODE		
IC1 ,2			TA8125S	IC(2CH PRE AMP)		
Q1 ,2			2SC3246	TRANSISTOR		
Q3 ,4			2SC1845(F,E)	TRANSISTOR		
Q5			2SA992(F,E)	TRANSISTOR		
Q6			2SA1175(F,E)	TRANSISTOR		
Q6			2SA933S(Q,R)	TRANSISTOR		
Q7 -12			2SC1740S(Q,R)	TRANSISTOR		
Q7 -12			2SC2785(F,E)	TRANSISTOR		
Q13 ,14			2SC3246	TRANSISTOR		
Q15			2SA1175(F,E)	TRANSISTOR		
Q15			2SA933S(Q,R)	TRANSISTOR		
Q16			2SC1740S(Q,R)	TRANSISTOR		
Q16			2SC2785(F,E)	TRANSISTOR		
CONTROL UNIT (X29-2400-00)						
C1 ,2			CQ92FM1H222J	MYLAR 2200PF J		
C3 ,4			CE04LW1HR47M	ELECTRO 0.47UF 50WV		
C5 ,6			CQ92FM1H222J	MYLAR 2200PF J		
C7 -10			CE04LW1HR47M	ELECTRO 0.47UF 50WV		
C11 ,12			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C13 ,14			CK45FB1H682K	CERAMIC 6800PF K		
C15 ,16			CE04LW1H2R2M	ELECTRO 2.2UF 50WV		
C17 -20			CQ92FM1H222J	MYLAR 2200PF J		
C21 ,22			CK45FF1H223Z	CERAMIC 0.022UF Z		
C23 ,24			CQ92FM1H222J	MYLAR 2200PF J		
C25 -28			CE04LW1H0R1M	ELECTRO 0.1UF 50WV		
C29 ,30			CE04LW1V100M	ELECTRO 10UF 35WV		
C31 ,32			CE04LW1H2R2M	ELECTRO 2.2UF 50WV		
C33 ,34			CE04LW1HR47M	ELECTRO 0.47UF 50WV		
C35 ,36			CE04LW1H2R2M	ELECTRO 2.2UF 50WV		
C37 ,38			CK45FB1H222K	CERAMIC 2200PF K		
C39 -44			CE04LW1V100M	ELECTRO 10UF 35WV		
C45 -52			CF92FV1H333J	MF 0.033UF J		
C53 ,54			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C55			C90-3244-05	ELECTRO 10UF 35WV		
C56			CK45FF1H103Z	CERAMIC 0.010UF Z		
C57 ,58			CK45FB1H222K	CERAMIC 2200PF K		
C59 ,60			CK45FF1H103Z	CERAMIC 0.010UF Z		
C101			CE04LW1V100M	ELECTRO 10UF 35WV		
C102			CE04LW1H2R2M	ELECTRO 2.2UF 50WV		
C103,104			CC45FSL1H101J	CERAMIC 100PF J		
C105,106			CK45FB1H102K	CERAMIC 1000PF K		
C107			CQ92FM1H222J	MYLAR 2200PF J		
C108			CE04LW1H331M	ELECTRO 330UF 50WV		
C109			CK45FF1H103Z	CERAMIC 0.010UF Z		
C111			CK45FF1H103Z	CERAMIC 0.010UF Z		
C201			CE04LW1V100M	ELECTRO 10UF 35WV		

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C202			CE04LW1E102M	ELECTRO 1000UF 25WV		
C203			CC45FSL1H101J	CERAMIC 100PF J		
C204			CE04LW1V471M	ELECTRO 470UF 35WV		
C205			CE04LW1V100M	ELECTRO 10UF 35WV		
C206			CE04LW1A101M	ELECTRO 100UF 10WV		
C207			CE04LW1V100M	ELECTRO 10UF 35WV		
C208			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C209			CE04LW1E102M	ELECTRO 1000UF 25WV		
C210			CE04LW1V101M	ELECTRO 100UF 35WV		
C211			CC45FSL1H101J	CERAMIC 100PF J		
C212			CE04LW1A101M	ELECTRO 100UF 10WV		
C213			CE04LW1H471M	ELECTRO 470UF 50WV		
C216-218			CE04LW1H101M	ELECTRO 100UF 50WV		
C219			CE04LW1V100M	ELECTRO 10UF 35WV		
C220			CE04LW1H100M	ELECTRO 10UF 50WV		
C229			CE04LW1A101M	ELECTRO 100UF 10WV		
C230			CF92FV1H104J	MF 0.10UF J		
C231			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C232			C90-1827-05	BACKUP 0.047F 5.5WV		
C233			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C234			CE04LW1C330M	ELECTRO 33UF 16WV		
C235,236			CC45FSL1H101J	CERAMIC 100PF J		
L1 ,2			L79-1201-05	LC FILTER		
L3 ,4			L40-1011-17	SMALL FIXED INDUCTOR(100UH,K)		
X1			L78-0294-05	RESONATOR (10.000M)		
D	2J		N89-3008-45	BINDING HEAD TAPTITE SCREW		
E	1J		N89-3008-46	BINDING HEAD TAPTITE SCREW		
CP1			R90-0818-05	MULTI-COMP 47KX5 J 1/6W		
R201			RD14NB2E102J	RD 1.0K J 1/4W		
R202			RS14KB3D821J	FL-PROOF RS 820 J 2W		
R211			RD14NB2E101J	RD 100 J 1/4W		
S1 -27			S40-1064-05	PUSH SWITCH		
D101			HZS4.7N(B)	ZENER DIODE		
D101			RD4.7ES(B)	ZENER DIODE		
D102,103			RB721Q	DIODE		
D104-109			HSS104	DIODE		
D104-109			1SS133	DIODE		
D112-126			HSS104	DIODE		
D112-126			1SS133	DIODE		
D133			HSS104	DIODE		
D133			1SS133	DIODE		
D134-136			RB721Q	DIODE		
D201			D3SBA20F03	DIODE		
D201			RBV-402LFA	DIODE		
D202			HZS6.8N(B2)	ZENER DIODE		
D202			RD6.8ES(B2)	ZENER DIODE		
D204,205			HSS104	DIODE		
D204,205			1SS133	DIODE		
D206			HZS6.2N(B2)	ZENER DIODE		
D206			RD6.2ES(B2)	ZENER DIODE		
D207,208			S5688B	DIODE		
D207,208			1SR139-100	DIODE		

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D209			HZS3.9N(B2)	ZENER DIODE		
D209			RD3.9ES(B2)	ZENER DIODE		
D210-212			HSS104	DIODE		
D210-212			1SS133	DIODE		
D213			HZS30N(B)	ZENER DIODE		
D213			RD30ES(B)	ZENER DIODE		
D218-221			HSS104	DIODE		
D218-221			1SS133	DIODE		
IC1			CXP82324-128Q	IC		
IC2			HA12157NT	IC(DOLBY B/C NR)		
IC3			TC4052BP	IC(4CH MPX/DE-MPX)		
IC3			XRU4052B	IC(MULTIPLEXER/DEMULTIPLEXER)		
IC4			NJM4565D	IC(OP AMP X2)		
IC4			XRA15218	IC(OP AMP X2)		
IC5			MN1381-R(TA)	IC(VOLTAGE DETECT)		
IC5			S-80740AL	IC(VOLTAGE DETECTOR)		
Q1 -6			2SC2878(B)	TRANSISTOR		
Q7 -15			DTC124ES	DIGITAL TRANSISTOR		
Q7 -15			UN4212	DIGITAL TRANSISTOR		
Q101			DTC124ES	DIGITAL TRANSISTOR		
Q101			UN4212	DIGITAL TRANSISTOR		
Q102			DTA124ES	DIGITAL TRANSISTOR		
Q102			UN4112	DIGITAL TRANSISTOR		
Q103			DTC124ES	DIGITAL TRANSISTOR		
Q103			UN4212	DIGITAL TRANSISTOR		
Q104			2SC3940A	TRANSISTOR		
Q105,106			2SC1740S(Q,R)	TRANSISTOR		
Q105,106			2SC2785(F,E)	TRANSISTOR		
Q107,108			DTA124ES	DIGITAL TRANSISTOR		
Q107,108			UN4112	DIGITAL TRANSISTOR		
Q109			DTC124ES	DIGITAL TRANSISTOR		
Q109			UN4212	DIGITAL TRANSISTOR		
Q201,202			2SD2061	TRANSISTOR		
Q203			2SA954(L,K)	TRANSISTOR		
Q204			2SC1740S(Q,R)	TRANSISTOR		
Q204			2SC2785(F,E)	TRANSISTOR		
Q205			2SC3944A	TRANSISTOR		
Q209			2SC1740S(Q,R)	TRANSISTOR		
Q209			2SC2785(F,E)	TRANSISTOR		
SIGNAL PROCESSOR UNIT (X32-2530-00)						
C1			CE04LW1A470M	ELECTRO 47UF 10WV		
C2 ,3			CC73FSL1H150J	CHIP C 15PF J		
C4			CE04LW1V100M	ELECTRO 10UF 35WV		
C5			CE04LW1A470M	ELECTRO 47UF 10WV		
C6 ,7			CE04LW0J331M	ELECTRO 330UF 6.3WV		
C8			CC73FSL1H150J	CHIP C 15PF J		
C9			CC73FSL1H270J	CHIP C 27PF J		
C10			CK73EF1C684Z	CHIP C 0.68UF Z		
C11			CE04LW1HR47M	ELECTRO 0.47UF 50WV		
C12			CK73FB1H333K	CHIP C 0.033UF K		
C13			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C14			CK73FB1H223K	CHIP C 0.022UF K		
C15			CC73FSL1H121J	CHIP C 120PF J		
C16			CK73FB1H222K	CHIP C 2200PF K		
C17			CK73FB1H103K	CHIP C 0.010UF K		

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C18			CK73FB1H102K	CHIP C	1000PF	K		
C19			CK73FB1E104K	CHIP C	0.10UF	K		
C20			CC73FSL1H470J	CHIP C	47PF	J		
C21			CE04HW1H3R3M	NP-ELEC	3.3UF	50WV		
C22			CK73FB1E104K	CHIP C	0.10UF	K		
C23			CC73FSL1H121J	CHIP C	120PF	J		
C24			CK73FB1E104K	CHIP C	0.10UF	K		
C25			CE04HW1E100M	NP-ELEC	10UF	25WV		
C26			CK73FB1E104K	CHIP C	0.10UF	K		
C27			CC73FSL1H151J	CHIP C	150PF	J		
C28 ,29			CK73FB1H103K	CHIP C	0.010UF	K		
C30			CE04HW1E100M	NP-ELEC	10UF	25WV		
C31			CK73FB1H103K	CHIP C	0.010UF	K		
C32 ,33			CE04LW1C470M	ELECTRO	47UF	16WV		
C34			CE04HW1H010M	NP-ELEC	1.0UF	50WV		
C35			CC73FSL1H121J	CHIP C	120PF	J		
C36			CE04HW1H2R2M	NP-ELEC	2.2UF	50WV		
C37			CE04HW1H010M	NP-ELEC	1.0UF	50WV		
C38			CE04LW1H010M	ELECTRO	1.0UF	50WV		
C39 -41			CE04HW1E100M	NP-ELEC	10UF	25WV		
C42 ,43			CK73FB1H103K	CHIP C	0.010UF	K		
C44			CE04HW1E100M	NP-ELEC	10UF	25WV		
C45 ,46			CK73FB1H103K	CHIP C	0.010UF	K		
C47			CE04LW0J221M	ELECTRO	220UF	6.3WV		
C48 ,49			CK73FB1H103K	CHIP C	0.010UF	K		
C50			CK73FB1H152K	CHIP C	1500PF	K		
C51			CK73FB1H473K	CHIP C	0.047UF	K		
C52			CE04HW1A220M	NP-ELEC	22UF	10WV		
C53			CK73FB1H332K	CHIP C	3300PF	K		
C54			CK73FB1H473K	CHIP C	0.047UF	K		
C55			CE04LW0J221M	ELECTRO	220UF	6.3WV		
C56			CE04LW0J471M	ELECTRO	470UF	6.3WV		
C57 ,58			CC73FCH1H470J	CHIP C	47PF	J		
C59 ,60			CC73FSL1H221J	CHIP C	220PF	J		
C61 -64			CK73FB1H471K	CHIP C	470PF	K		
C65			CK73FB1E104K	CHIP C	0.10UF	K		
C66 ,67			CK73FB1H103K	CHIP C	0.010UF	K		
C68 ,69			CK73FB1H681K	CHIP C	680PF	K		
C70			CK73FB1H103K	CHIP C	0.010UF	K		
C71 ,72			CE04HW1E100M	NP-ELEC	10UF	25WV		
C73 ,74			CK73FB1H102K	CHIP C	1000PF	K		
C75 ,76			CE04LW1A470M	ELECTRO	47UF	10WV		
C77			CK73FB1H103K	CHIP C	0.010UF	K		
C78			CE04LW1V470M	ELECTRO	47UF	35WV		
C79			CE04DW1V221M	ELECTRO	220UF	35WV		
C80 ,81			CE04HW1V221M	NP-ELEC	220UF	35WV		
C82 -85			CE04LW1E221M	ELECTRO	220UF	25WV		
C86			CE04LW1C472M	ELECTRO	4700UF	16WV		
C87			CE04LW1C222M	ELECTRO	2200UF	16WV		
C88			CK73FB1H103K	CHIP C	0.010UF	K		
C89			CE04LW1C222M	ELECTRO	2200UF	16WV		
C90 ,91			CK73FB1H103K	CHIP C	0.010UF	K		
C92 ,93			CC73FSL1H101J	CHIP C	100PF	J		
C94 ,95			CC73FSL1H221J	CHIP C	220PF	J		
C96 ,97			CE04LW1A101M	ELECTRO	100UF	10WV		

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C98 -101			CE04LW1C470M	ELECTRO 47UF 16WV		
C102			CC73FSL1H680J	CHIP C 68PF J		
C103,104			CK73FB1H473K	CHIP C 0.047UF K		
C105			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C106,107			CF92FV1H224J	MF 0.22UF J		
C108			CK73FB1H473K	CHIP C 0.047UF K		
C109			CK73FB1H223K	CHIP C 0.022UF K		
CN3	3D		E40-0611-05	PIN ASSY		
CN9	3D		E40-4284-05	FLAT CABLE CONNCTOR		
CN10	3D		E40-4616-05	FLAT CABLE CONNCTOR		
CN11	3D		E40-4244-05	SOCKET FOR PIN ASSY		
			J11-0098-05	WIRE CLAMPER		
L1			L33-0369-05	CHOKE COIL		
X1			L77-1164-05	CRYSTAL RESONATOR(16.9344MHZ)		
R82			RS14KB3A4R7J	FL-PROOF RS 4.7 J 1W		
R111			RS14KB3D101J	FL-PROOF RS 100 J 2W		
R122,123			RS14KB3D8R2J	FL-PROOF RS 8.2 J 2W		
R130			RS14KB3A5R6J	FL-PROOF RS 5.6 J 1W		
VR1			R12-3685-05	TRIMMING POT.(10K)		
VR2			R12-3686-05	TRIMMING POT.(22K)		
VR3 ,4			R12-3685-05	TRIMMING POT.(10K)		
W1 -3			R92-0679-05	CHIP R 0 OHM		
W4			R92-0670-05	CHIP R 0 OHM		
W5 -13			R92-0679-05	CHIP R 0 OHM		
W14			R92-0670-05	CHIP R 0 OHM		
D1 ,2			MA110	DIODE		
D1 ,2			1SS355	DIODE		
D3 ,4			HN2D01F	DIODE		
D9 -14			MA110	DIODE		
D9 -14			1SS355	DIODE		
D15			DTZ8.2(B)	ZENER DIODE		
D16			DTZ10(B)	ZENER DIODE		
D17 -22			S5688B(TPB5)	DIODE		
D17 -22			1SR139-100(T64)	DIODE		
D23 ,24			DTZ10(B)	ZENER DIODE		
D25			DA204U	DIODE		
D26			S5688B(TPB5)	DIODE		
D26			1SR139-100(T64)	DIODE		
D30 ,31			DA204U	DIODE		
IC1			CXA1571M	IC(CD RF AMP)		
IC2			CXA1372Q	IC(CD RF SERVO)		
IC3			CXD2500BQ	IC(DIGITAL SIGNAL PROCESSOR)		
IC4			TC9237BF	IC(D/A CONVERTER)		
IC5			TC74HC165AF	IC(8BIT SHIFT REGISTER)		
IC6			UPD75217GF-616	IC		
IC7			NJM4565M	IC(OP AMP)		
IC8 ,9			LA6510	IC(DUAL POWER OP AMP)		
IC8 ,9			TA8410AK	IC(POWER OP AMP)		
IC10		*	PST529DMT	IC(SYSTEM RESET)		
IC10			PST572DMT	IC(SYSTEM RESET)		
IC11			LA6510	IC(DUAL POWER OP AMP)		
IC11			TA8410AK	IC(POWER OP AMP)		

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IC12,13			NJM4565M	IC(OP AMP)		
IC14			LM2940CT-5.0	IC(LOW VOLTAGE REGULATOR)		
IC15			TA79005S	IC(VOLTAGE REGULATOR/ -5V)		
IC15			UPC7905HF	IC(VOLTAGE REGULATOR/ -5V)		
Q1			DTC124EU	DIGITAL TRANSISTOR		
Q2			2SC3246	TRANSISTOR		
Q3 ,4			DTC124EU	DIGITAL TRANSISTOR		
Q5 ,6			2SC4081(R,S)	TRANSISTOR		
Q7			DTA124EU	DIGITAL TRANSISTOR		
Q8			2SB1308(Q,R)	TRANSISTOR		
Q9			DTA124EU	DIGITAL TRANSISTOR		
Q10			2SD1963(R,S)	TRANSISTOR		
Q11 ,12			DTA124EU	DIGITAL TRANSISTOR		
			CD MECHANISM ASSY (X92-1839-20)			
1	3C	*	A10-3025-02	CHASSIS ASSY		
2	3D		A11-0742-02	SUB CHASSIS RIGHT		
3	1C	*	A11-0745-01	SUB CHASSIS LEFT		
4	1B		A11-0746-04	SUB CHASSIS CALKING ASSY		
5	1D	*	A11-0750-02	SUB CHASSIS LOADING		
6	2D	*	A11-0752-02	SUB CHASSIS LOADING		
7	1A	*	A11-0753-03	SUB CHASSIS		
8	3B		A11-0763-04	SUB CHASSIS CALKING ASSY		
9	1A	*	A11-0765-04	SUB CHASSIS CALKING ASSY DOOR		
14	3A		D10-3105-03	SLIDER		
15	2B		D10-3257-03	SLIDER		
16	1A	*	D10-3258-03	ARM DOOR		
17	2B		D10-3260-03	ARM		
18	1B		D10-3261-03	SLIDER		
19	1B		D10-3262-04	SLIDER		
20	1C		D10-3263-03	SLIDER		
21	1C		D10-3264-04	SLIDER		
22	1B		D10-3265-04	ARM		
23	1A		D10-3266-03	ARM DOOR		
24	2D		D10-3267-03	ARM		
25	2C		D10-3268-03	SLIDER		
26	1C,1D		D10-3269-04	ARM ASSY		
27	1D,2D		D10-3271-04	ARM ASSY		
32	1D		D10-3273-03	ARM		
33	3C		D10-3274-04	ARM		
34	2A		D10-3275-04	SLIDER EJECT		
35	2A		D10-3276-03	ARM LOCK		
36	1A	*	D10-3278-04	ARM ASSY DOOR		
37	3A		D10-3281-03	SLIDER		
38	1C		D10-3294-14	ROD		
43	3B		D13-0983-04	GEAR		
44	2B		D13-0984-04	GEAR		
45	2B		D13-0985-04	GEAR		
46	2B		D13-0986-04	GEAR		
47	2B,2C		D13-0987-04	GEAR		
48	2C		D13-0989-04	GEAR		
49	2C		D13-0990-04	GEAR		
50	1B		D13-0991-04	GEAR WORM		
51	1B		D13-0992-04	GEAR		
52	1B		D13-0993-04	GEAR		

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53	1B		D13-0994-04	GEAR		
54	2B		D13-0995-04	GEAR		
55	3B		D13-0996-04	GEAR		
56	3B		D13-1502-04	WORM		
57	3A		D21-1633-05	SHAFT		
60	3B	*	E35-0388-05	WIRING HARNESS		
61	3A		E35-0390-05	WIRING HARNESS		
62	2B,2C	*	E35-0391-05	WIRING HARNESS		
63	1B	*	E35-0392-05	WIRING HARNESS		
64	2C		E35-0417-05	WIRING HARNESS		
65	2C		E35-0418-05	WIRING HARNESS		
66	1A		E35-0435-08	WIRING HARNESS		
70	3A		G01-3333-04	EXTENSION SPRING		
71	1A		G01-3470-08	TORSION COIL SPRING DOOR		
72	1A		G01-3471-08	EXTENSION SPRING DOOR		
73	2B		G01-3472-04	EXTENSION SPRING		
74	2C		G01-3473-04	COMPRESSION SPRING		
75	1C		G01-3474-04	EXTENSION SPRING		
76	2C		G01-3475-04	EXTENSION SPRING		
77	2A		G01-3476-04	EXTENSION SPRING		
78	1A		G01-3477-04	EXTENSION SPRING		
79	1B		G01-3480-04	EXTENSION SPRING		
80	1A		G01-3481-08	EXTENSION SPRING DOOR		
81	2C		G01-3485-04	COMPRESSION SPRING		
82	2C	*	G01-3518-04	COMPRESSION SPRING		
83	2B		G02-1002-04	FLAT SPRING		
84	1B,3C		G10-0146-04	NON-WOVEN FABRIC		
86	1A,1B	*	G11-2134-08	CUSHION DOOR		
91	2C		J02-1058-15	INSULATOR		
92	2D		J11-0181-03	CLAMPER		
93	3A	*	J19-3570-02	HOLDER ASSY		
94	3A	*	J19-3486-01	HOLDER		
95	2B	*	J19-3487-02	HOLDER		
96	2A	*	J19-3489-02	HOLDER		
97	1B	*	J21-5922-04	MOUNTING HARDWARE		
98	1C		J90-0685-03	GUIDE		
99	2C	*	J90-0686-14	RAIL ASSY		
100	3D	*	J90-0688-13	RAIL		
101	3A		J99-0517-02	TRAY		
105	1B,1C		N09-2769-05	MACHINE SCREW		
106	2C		N09-2817-05	TAPTITE SCREW (2.6X10,12P)		
107	2C		N09-2913-05	MACHINE SCREW		
108	2C		N09-2914-05	MACHINE SCREW		
109	1B,3B		N19-0366-04	FLAT WASHER		
110	2C,2D		N19-0891-04	FLAT WASHER		
111	2B		N19-1105-04	FLAT WASHER		
112	2C	*	N19-1318-04	FLAT WASHER		
113	1D,2D		N38-2625-46	PAN HEAD MACHIN SCREW		
114	1B,3B		N39-2025-46	PAN HEAD MACHIN SCREW		
115	2B,2C		N83-2008-46	PAN HEAD TAPTITE SCREW		
116	1A	*	N86-2008-46	BINDING HEAD TAPTITE SCREW		
117	2D		N89-2006-46	BINDING HEAD TAPTITE SCREW		
118	1D		N89-2606-45	BINDING HEAD TAPTITE SCREW		
119	3B		N89-2606-46	BINDING HEAD TAPTITE SCREW		
120	1A,1B		N89-2608-46	BINDING HEAD TAPTITE SCREW		

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125	1A		S33-1022-05	LEVER SWITCH		
126	3B		S33-2061-05	LEVER SWITCH		
130	2B		T42-0597-05	DC MOTOR		
135	2D		T50-1055-04	YOKE		
136	2D		T99-0503-15	MAGNET		
PU	1C		T25-0023-05	OPTICAL PICKUP HEAD		
SOL1	1A	*	T94-0227-18	MAGNETIC PLUNGER		
SW1	2C		S33-1022-05	LEVER SWITCH		
DM	2C		A11-0791-03	DISK MOTOR ASSY		
FM	1B		T42-0612-04	FEED MOTOR ASSY		
LM	3A		T42-0620-05	LOADING MOTOR		
VM	1B		T42-0567-05	DC MOTOR		
CASSETTE MECHANISM ASSY (D40-1289-05 : A ; 1291-05 : B)						
301	2E		A10-2922-08	HEAD CHASSIS CALKED ASSY		
302	1F		A11-0754-08	BASE CHASSIS ASSY		
305	1G		D01-0138-08	FLYWHEEL ASSY LEFT		
306	2G		D01-0139-08	FLYWHEEL ASSY RIGHT		
308	2F		D10-3210-08	SHIFT LEVER		
309	2E		D10-3211-08	PLAY SHIFT LEVER		
310	2F		D10-3212-08	INTER LOCK LEVER RIGHT		B
310	2E		D10-3220-08	INTER LOCK LEVER LEFT		A
311	1E		D10-3304-08	EJECT LEVER LEFT		A
311	2F		D10-3305-08	EJECT LEVER RIGHT		B
312	1F		D10-3214-08	FR ARM		
313	1E		D10-3215-08	PLAY ARM		
314	1G		D10-3216-08	SHIFT SELECT LEVER		
315	2F		D10-3217-08	TRIGGER ARM		
316	2F		D10-3218-08	SELECT ARM		
317	1G		D10-3219-08	BRAKE ARM		
319	1F		D13-0965-08	CLUTCH GEAR		
320	1F		D13-0966-08	REW GEAR		
321	1F		D13-0967-08	FR GEAR		
322	1F,2F		D13-0968-08	REEL GEAR		
323	2G		D13-0970-08	PLAY CAM GEAR		
324	1E		D13-0974-08	PLAY GEAR ASSY		
325	2E		D13-0981-08	ROTATION GEAR		
326	2E		D13-0982-08	RETURN GEAR		
329	1F,2F		D19-0270-18	REEL CAP		
330	1G		D19-0273-08	CLUTCH PULLEY ASSY		
332	2F		D23-0284-08	HOUSING ASSY RIGHT		
333	1E		D23-0270-08	HOUSING ASSY LEFT		
335	1G		E35-0264-08	MOTOR WIRE		
336	1G		E35-0396-08	FLAT WIRE 15P		
337	1F		E35-0394-08	HEAD WIRE 5P		B
337	1F		E35-0398-08	HEAD WIRE 3P		A
338	1G		E40-4244-05	PIN CONNECTOR		
340	2E		G01-3428-08	RETURN GEAR SPRING		
341	1F		G01-3429-08	REEL SPRING		
342	1G		G01-3431-08	CLUTCH ARM SPRING		
343	1E		G01-3432-08	PLAY ARM SPRING		
344	1G		G01-3433-08	SHIFT SELECT LEVER SPRING		
345	2G		G01-3434-08	TRIGGER ARM SPRING		
346	2F		G01-3435-08	SHIFT LEVER SPRING		
347	2E		G01-3436-08	HEAD CHASSIS SPRING		

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348	2F		G01-3437-08	PINCH ROLLER ARM SPRING RIGHT		
349	1E		G01-3438-08	PINCH ROLLER ARM SPRING LEFT		
350	1G		G01-3439-08	BRAKE ARM SPRING		
351	2E		G01-3440-08	INTER LOCK LEVER SPRING RIGHT		B
351	2E		G01-3441-08	INTER LOCK LEVER SPRING LEFT		A
352	1E	*	G01-3602-08	EJECT LEVER SPRING LEFT		A
352	2F	*	G01-3603-08	EJECT LEVER SPRING RIGHT		B
353	1F		G02-0913-08	PACK LOCK FLAT SPRING		
354	2E		G02-0994-08	AZIMUTH SPRING		
355	2E		G11-2117-08	HEAD WIRE CLAMPER		
356	1F		G16-0780-08	REFLECT SEAL		
357	2E		G16-0786-08	INSULATING SHEET		
358	2E		J21-5918-08	HEAD PLATE ASSY		
360	2E		J31-0850-08	RETURN GEAR COLLAR		
361	1E,2F		J31-0852-08	EJECT LEVER COLLAR		
362	2F		J42-0183-08	REEL CAP BUSHING		
363	2E		J90-0679-08	TAPE GUIDE		
364	1E		J90-0680-08	CASSETTE GUIDE		
365	1E,2F		N09-2952-08	SCREW M2.6X8		
366	2E,1G		N09-2871-08	SCREW M2X6		
367	2E		N09-2872-08	SCREW M1.7X8		
368	2E		N09-2953-08	SCREW M2X10		
369	2E		N09-2876-08	HEAD SCREW		
370	2E,2F		N09-2877-08	TAP TITE SCREW M2X4		
371	2E		N19-2883-08	AZIMUTH SCREW		
372	1F		N19-1224-08	FLAT WASHER /4.1X6.5X0.25		
373	1G		N19-1225-08	FLAT WASHER /2.1X4.0X0.25		
374	1F		N19-1285-08	FLAT WASHER /1.6X3.0X0.13		
375	2G		N19-1286-08	FLAT WASHER /2.3X4.0X0.25		
376	2E		N19-1287-08	FLAT WASHER /3.5X6.5X0.5		
377	1E		N19-1288-08	FLAT WASHER /1.65X5.0X0.5		
378	2F		N19-1316-08	FLET WASHER /1.8X6.0X0.5		
379	1F		N35-2604-46	BINDING HEAD MACHINE SCREW		
380	2G		N09-2900-08	SCREW M2X6		
381	2G		N09-2901-08	SCREW M2X4		
385	1G		S74-0006-08	LEAF SWITCH (REC,METAL,CrO2)		
386	1G		S74-0007-08	LEAF SWITCH (PACK DETECT)		
388	2F		T94-0228-08	SOLENOID ASSY		
390	1G		W02-1130-08	ELECTRIC UNIT		
BM	1G		D16-0332-08	MAIN BELT		
BR	1G		D16-0331-08	REEL BELT		
PF	2F		D14-0341-08	PINCH ROLLER ASSY		
PR	2E		D14-0340-08	PINCH ROLLER ASSY		
MM	1F		T42-0599-08	DC MOTOR ASSY		
PH	2E		T31-0066-08	PLAYBACK HEAD		A
RPEH	2E		T39-0020-08	REC/PLAYBACK/ERASE HEAD		B
PH1	1G		NJL5165K	PHOTO REFLECTOR		

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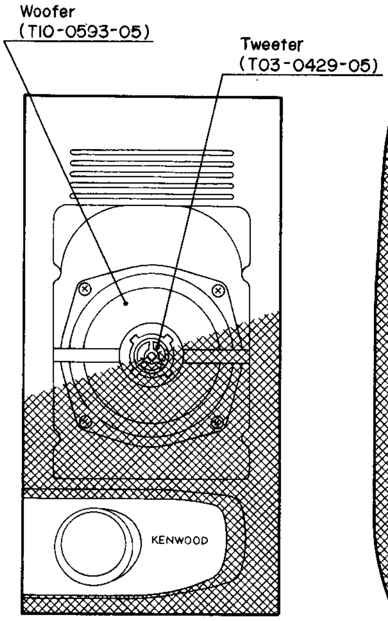
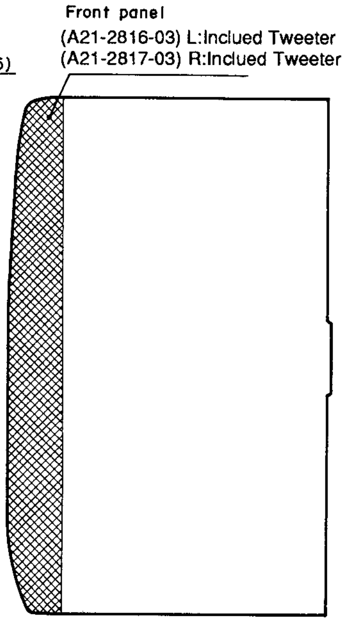
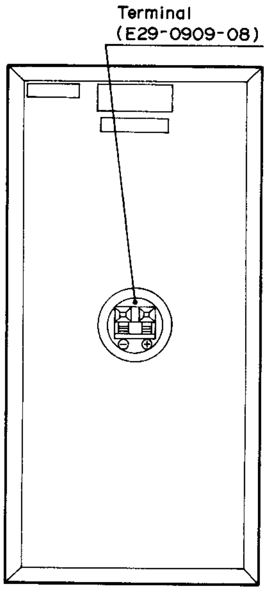
UD-301/351

SPEAKERS SYSTEM

EXTERNAL VIEW


Woofer
(T10-0593-05)
Tweeter
(T03-0429-05)
KENWOOD


Front panel
(A21-2816-03) L:Inclued Tweeter
(A21-2817-03) R:Inclued Tweeter


Terminal
(E29-0909-08)

NOTE : The tweeter is mounted on the front panel. When repairing , replace it together with the front panel.

SPECIFICATIONS

System	2-Way 2-Speaker System
Enclosure	Bass-Reflex, Bookshelf Type
Loudspeakers	
Woofer	120 mm (4-3/4 in) Cone Type
Tweeter	50 mm (2 in) Cone Type
Nominal Impedance	6 ohms
Maximum Input Power	60 Watts
Rated Input Power	30 Watts
Sensitivity	88 dB/W at 1 m
Frequency Response	50 Hz to 20,000 Hz
Crossover Frequency	5,000 Hz
Terminals	Push-Lever Type
Dimensions	Width: 190 mm (7-1/2 in) Height: 380 mm (14-15/16 in) Depth: 255 mm (10-1/16 in)
Net Weight	5.0 kg (11.0 lbs)
Enclosure Finish	High density particle board laminated with simulated wood grain vinyl.
Accessories	Speaker Wire

Note:
KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

UD-301/351

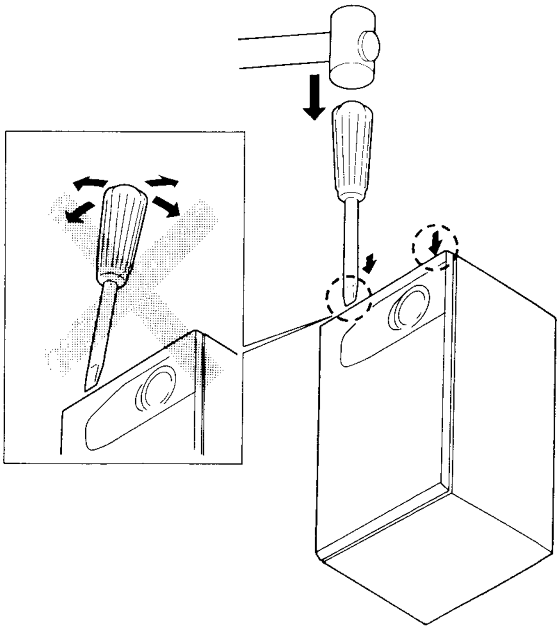
SPEAKERS SYSTEM

DISASSEMBLY FOR REPAIR

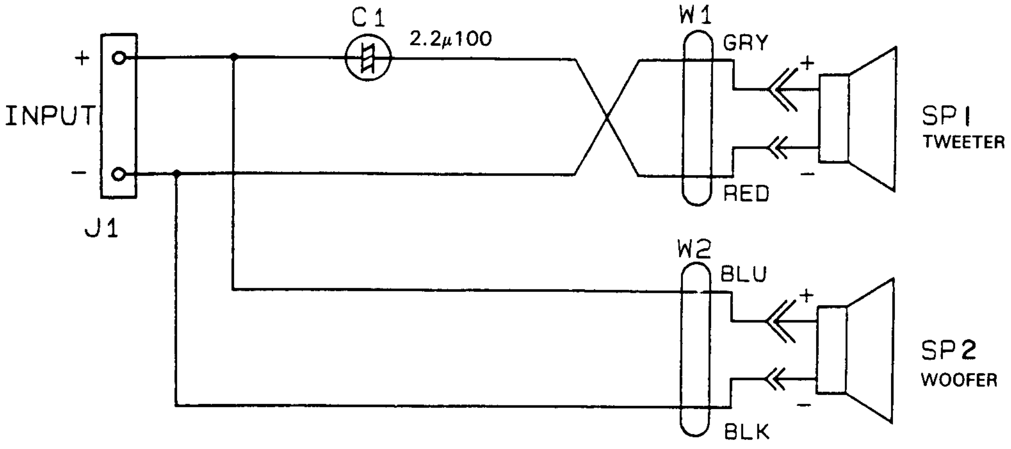
HOW TO REMOVE THE GRILLE ASS'Y

Insert the tip of ⊖ driver into the four ditches located on the upper and lower sides of the net and widen the space between the net and speaker.

In doing this, attach a cloth to the speaker cabinet so as not to damage it.



SCHEMATIC DIAGRAM


C1
2.2μ100
W1
GRY
+
INPUT
+
−
−
J1
RED
SP1
TWEETER
W2
BLU
+
BLK
−
SP2
WOOFER

SPEAKERS SYSTEM

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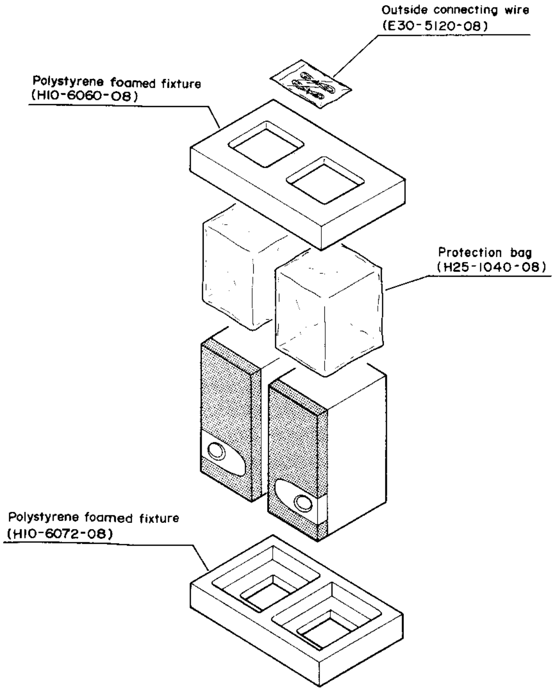
				LS-B3		
-		*	A21-2816-03	FRONT PANEL ASSY L		
-		*	A21-2817-03	FRONT PANEL ASSY R		
-			E30-5120-08	OUTSIDE CONNECTING WIRE		
		*	H51-0254-08	ITEM CARTON CASE	TE	
		*	H51-0255-08	ITEM CARTON CASE	PYMX	
-		*	H10-6060-08	POLYSTYRENE FOAMED FIXTURE T		
-		*	H10-6072-08	POLYSTYRENE FOAMED FIXTURE B		
-		*	H13-0710-08	CARTON BOARD	K	
-		*	H21-1089-08	PROTECTION SHEET	PYMXTE	
-		*	H25-1040-08	PROTECTION BAG	K	
SP1		*	T03-0429-05	LOUDSPEAKER(TWEETER)		
SP2		*	T10-0593-05	LOUDSPEAKER(WOOFER)		
				NETWORK (X21-6290-00)		
C1			C90-1098-05	NP-ELEC 2.7UF 100WV		
J1			E29-0909-08	LOCK TERMINAL BOARD		

L:Scandinavia　**K:**USA　**P:**Canada
Y:PX(Far East, Hawaii)　**T:**England　**E:**Europe
Y:AAFES(Europe)　**X:**Australia　**M:**Other Areas

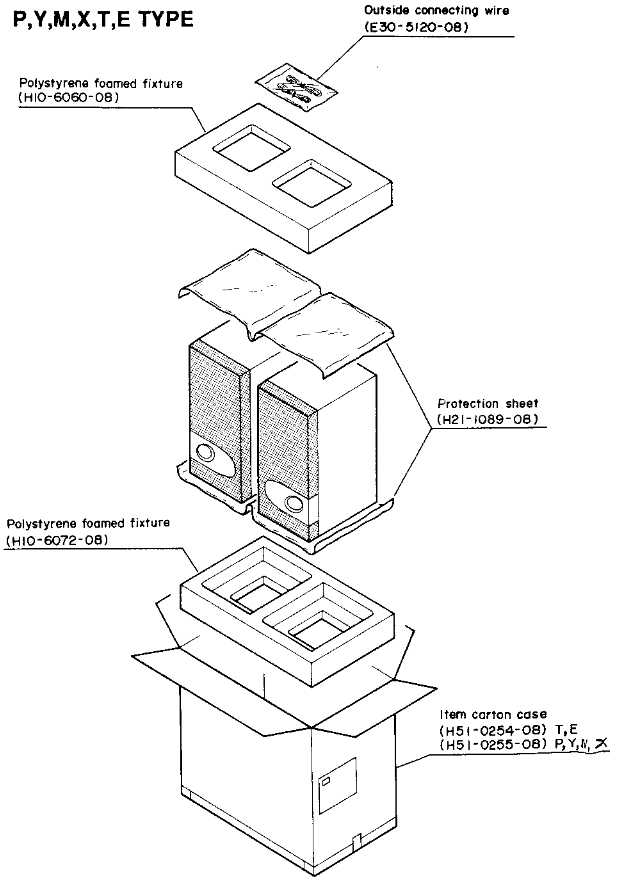
⚠ indicates safety critical components.

PACKING

K TYPE


Outside connecting wire
(E30-5120-08)
Polystyrene foamed fixture
(H10-6060-08)
Protection bag
(H25-1040-08)
Polystyrene foamed fixture
(H10-6072-08)

P,Y,M,X,T,E TYPE


Outside connecting wire
(E30-5120-08)
Polystyrene foamed fixture
(H10-6060-08)
Protection sheet
(H21-1089-08)
Polystyrene foamed fixture
(H10-6072-08)
Item carton case
(H51-0254-08) T,E
(H51-0255-08) P,Y,M,X

SPECIFICATIONS

(For other countries)

A-B3 (AMP. GE, TUNER)

STEREO MODE

Continuous rated power output

35 watts per channel minimum RMS, both channels driven, at 6Ω 1kHz with no more than 10% total harmonic distortion. (EIAJ)

(IHF '66) From 60 Hz to 20kHz,
0.1% T.H.D. at 6Ω .... 25W+25W
Total harmonic distortion 0.1% (1kHz, 6Ω)
1/2 Rated Power

Signal noise ratio
LINE (AUX) 86 dB (IHF '66)

Input sensitivity/impedance
LINE (AUX) 200mV/47kΩ

Continuous rated power output
(DIN) 1kHz, at 6Ω .... 28W+28W
(IEC/NF) From 63Hz to 12,500 Hz,
0.7% T.H.D. at 6Ω .... 25W+25W
Total harmonic distortion 0.1% (1kHz,6Ω)
1/2Rated Power

Signal to noise ratio
LINE (AUX) 86 dB (IHF '66)

Input sensitivity/Impedance
LINE (AUX) 200mV/47kΩ

Continuous rated power output (FTC)

25 watts per channel minimum RMS, both channels driven, at 6Ω from 60Hz to 20,000Hz with no more than 0.1% total harmonic distortion.

Total harmonic distortion 0.1% (1kHz, 6Ω)
1/2 Rated Power

Signal to noise ratio
LINE (AUX) 86 dB (IHF '66)

Input sensitivity/impedance
LINE (AUX) 200mV/47kΩ

Graphic equaller
Center frequency 63Hz, 160Hz, 400Hz, 1kHz, 2.5kHz, 6.3kHz, 16kHz
Control range ....±10dB

VIDEO section

Input level/Impedance
VIDEO (composite) .... 1V$_{p-p}$/75Ω
S-VIDEO (Luminance signal) ... 1V$_{p-p}$/75Ω
(Chrominance signal) 0.286V$_{p-p}$/75Ω

DIGITAL section

Samplling frequency 32kHz, 44.1kHz, 48kHz

Input level/Impedance
Coaxial ....0.5V$_{p-p}$/75Ω
Wave length 660nm ±30nm

Output level/impedance
Coaxiai ....0.5V$_{p-p}$/75Ω
Wave length 660nm ± 30nm

SPECIFICATIONS

(For U.K. and Europe)

A-B3/L (AMP.GE.TUNER)

FM tuner section

Reception frequency range	87.5MHz~108MHz
Usabie sensitivity (DIN at 75Ω)	
MONO	0.9μV/10.2dBf
STEREO	28μV/40.2dBf
Total harmonic distortion (DIN at 1kHz)	
MONO	0.3% (65.2dBf input)
STEREO	0.8% (65.2dBf input)
Signal noise ratio (DIN weighted at 1kHz)	
MONO	69dB
STEREO	62dB
Stereo separation (DIN)	
1kHz	42dB
6.3kHz	37dB
Selectivity (DIN±300kHz)	64dB
Image rejection ratio (at 98MHz)	90dB
IF rejection ratio (at 98MHz)	90dB
Spurious rejection ratio (at 98MHz)	90dB
Frequency response (30Hz~15kHz)	+0.5dB, -3.5dB

MW tuner section

Reception frequency range	531kHz~1,602kHz
Usable sensitivity	20μV/(600μV/m)
Signal to noise ratio	
(at 30% mod. 1mVinput)	47dB
Total harmonic distortion	0.6%
Image rejection ration	30dB
Selectivity	30dB

LW tuner section

Reception frequency range	153kHz~279kHz
Usabie sensitivity	20μV
Signal to noise ratio	
(at 30% mod. 1mV input)	43dB
Total harmonic distortion	0.8%
Image rejection ratio	40dB
Selectivity	35dB

(FOR U.S.A. and General market)

A-B3 (AMP. GE. TUNER)

FM tuner section

Reception frequency range	87.5MHz-108MHz
Usable sensltlvlty (MONO at 75Ω)	1.2μV/13.2dBf
50 dB quleting sensitivity (at 75Ω)	
MONO	1.8μV/16.2dBf
STEREO	28μV/40.2dBf
Total harmonic distortion (at 1kHz)	
MONO	0.4% (65dBf input)
STEREO	0.5% (65dBf input)
Signal to noise ratio (at 1kHz)	
MONO	78dB (65dBf input)
STEREO	71dB (65dBf input) 74dB (85dBf input)
Stereo separation	
1kHz	40dB
Capture ratio (WIDE)	2.0dB
Selectivity (±400kHz)	50dB
Image rejection (at 98MHz)	46dB
IF rejection ratio (at 98MHz)	89dB
Spurious rejection ratio (at 98MHz)	77dB
AM suppression radio	63dB
Frequency response (30Hz-15kHz)	+0.5dB, -3.5dB

AM tuner section

Reception frequency range	
9kHz step	531kHz~1,602kHz
10kHz step	530kHz~1,610kHz, 530kHz~1,700kHz (K.P) or 530kHz~1,700kHz
Usabie sensltivity	16μV/(500μV/m)
Signal to noise ratio	
(at 30% mod. 1mV input)	48dB
Total harmonic distortion	0.6%
Image rejection ratio	30dB
Selectivity	30dB

GENERAL

Power consumption	100W (IEC)
Dimensions	W : 270 mm H : 190 mm D : 280 mm
Weight (Net)	5.1kg

UD-301/351

SPECIFICATIONS

X-B3 (CASSETTE DECK)

Track system	4 track 2 channel stereo
Recording system	AC bias (Frequency : 105kHz)
Wow & flutter	0.1% (W.RMS)
Fast winding time	Approx. 110 seconds (C-60 tape)
Frequncy response	
Normal tape	30Hz to 15,000 Hz, ±3dB
CrO2 tape	30Hz to 16,000 Hz, ±3dB
Signal to noise ratio	
Dolby NR OFF (IEC, 250nWb/m, CrO2 tape)	50dB
Dolby NR OFF	53dB
Dolby B NR ON	63dB
Dolby C NR ON (3rd H.D.3%, CrO2 tape)	72dB

General

Power consumption	AC 16V 0.6A
Dimensions	W : 270mm H : 190mm D : 257mm
Weight (Net)	4.1kg

X-B3 (DECK, CD)

FORMAT

System	Compact disc digtal audio system
Laser	Semiconductor laser
Number of channels	2 channels
Playing rotation	200 rpm - 500rpm (CLV)

D/A Convertors

D/A conversion	1 Bit
Oversampling	8 fs (352.8kHz)

Audio

Frequency response	20Hz-20kHz, ±1.5dB
Signal to noise ratio	More than 90dB
Total harmonic distortion	Less than 0.01% (at 1kHz)
Wow & flutter	Unmeasurable Limit

General

Power consumption	AC9V 0.8A
Dimensions	W : 270mm H : 190mm D : 257mm
Weight (Net)	4.1kg

Kenwood follows a policy of continuous advancements in development.
For this reason specifications may be changed without notice.

Kenwood poursuit une politique de progrès constants en ce qui concerne le développement.
Pour cette raison, les spécifications sont sujettes à modifications sans préavis.

Kenwood strebt ständige Verbesserungen in der Entwicklung an
Daher bleiben Änderungen der technischen Daten jederzeit vorbehalten

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Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the U.S.A. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

X-MB3 (CASSETTE DECK)

Track system	4 track 2 channel stereo
Recording system	AC bias (Frequency : 105kHz)
Wow & flutter	0.1% (W.RMS)
Fast winding time	Approx. 110 seconds (C-60 tape)
Frequncy response	
Normal tape	30Hz to 15,000 Hz, ±3dB
CrO2 tape	30Hz to 16,000 Hz, ±3dB
Signal to noise ratio	
Dolby NR OFF (IEC, 250nWb/m, CrO2 tape)	50dB
Dolby NR OFF	53dB
Dolby B NR ON	63dB
Dolby C NR ON (3rd H.D.3%, CrO2 tape)	72dB

General

Power consumption	AC 16V 0.6A
Dimensions	W : 270mm H : 190mm D : 307mm
Weight (Net)	5.4kg

X-MB3 (DECK, CD)

Fomal

System	Compact disc digtal audio system
Laser	Semiconductor laser
Number of channels	2 channels
Playing rotation	200 rpm - 500rpm (CLV)

D/A Conversion

D/A conversion	1 Bit
Oversampling	8 fs (352.8kHz)

Audio

Frequency response	20Hz-20kHz, ±1dB
Signal to noise ratio	More than 90dB
Total harmonic distortion	Less than 0.01% (at 1kHz)
Wow & flutter	Unmeasurable Limit

General

Power consumption	AC9V 0.8A
Dimensions	W : 270mm H : 190mm D : 307mm
Weight (Net)	5.4kg

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